

Remedial Action Project Completion Report Infiltration Treatment Wetland Construction OMC Waukegan Harbor Site, Waukegan, Illinois

PREPARED FOR: U.S. Environmental Protection Agency (EPA)

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CH2M prepared this Remedial Action Project Completion Report (RACR) for Operable Unit 1 (OU1) of the Outboard Marine Corporation, Inc. (OMC) Waukegan Harbor Site in Waukegan, Illinois, to summarize construction activities of the infiltration treatment wetland. This work was performed for EPA in accordance with Work Assignment (WA) No. 228-RARA-0548 under Contract No. EP-S5-06-01.

This RACR includes the following sections, tables, figure, and attachment:

Sections

- 1.0, Introduction—Presents a brief site description, site history, purpose, remedial action objectives and goals, and components of the remedial action.
- 2.0, Components of the Infiltration Wetland Remedial Action—Presents Definable Features of Work (DFOWs).
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1.0 Introduction

EPA, in consultation with the Illinois Environmental Protection Agency, selected a remedy in the Record of Decision Amendment to address the polychlorinated biphenyl (PCB)-contaminated sediment in Waukegan Harbor (EPA 2009).

The overall strategy, elements, and design criteria to construct the treatment wetland system in Waukegan Harbor are presented in the *Infiltration Treatment Wetland Design, OMC/Waukegan Harbor Site, Waukegan, Illinois Final Basis of Design Report* (CH2M 2020) prepared for EPA under WA No. 228-RARA-0528.

1.1 Site Description and History

The OMC Superfund Site is located on Lake Michigan around the northern Waukegan Harbor in Waukegan, Illinois. The site consists of four OUs: Waukegan Harbor Site (OU1), the Waukegan Manufactured Gas and Coke Plant Site (OU2), three PCB containment cells in which PCB-contaminated sediment dredged from Waukegan Harbor in the early 1990s and PCB-impacted soil are managed (OU3), and the OMC Plant 2 Site (OU4). OMC Plant 2 is the source of PCB contamination in the Waukegan Harbor sediments (CH2M 2006).

The OMC Plant 2 Site (OU4) is a 60-acre industrial property bordered by the North Shore Water Reclamation District to the north; Lake Michigan to the east; Sea Horse Drive, the Waukegan Manufactured Gas and Coke Plant Site, and Waukegan Harbor to the south; and Elgin, Joliet & Eastern railroad to the west. The North Ditch drains upland (offsite) areas and runs along the northern site boundary toward Lake Michigan until it turns to the south, near the lake. The lakefront portion of the site is emergent dune land and beachfront. Figure 1 shows the layout of the site.

The OMC Plant 2 Site previously contained a 1,000,000-square-foot facility in which OMC manufactured outboard motors from about 1948 until 2000. OMC used hydraulic and lubricating oils containing PCBs in its production-line machinery beginning in 1961 until 1972 and allowed the oils to empty into floor drains that discharged to Waukegan Harbor (through the Slip 3 outfall) or to a series of onsite ditches and lagoons, which fed into the North Ditch and eventually discharged into Lake Michigan. OMC also operated several vapor degreasers to clean newly made parts with trichloroethene (TCE). Leaking degreasers and/or TCE storage tanks have created a widespread TCE groundwater contaminant plume and an isolated dense nonaqueous phase liquid TCE pool beneath the site.

In February 1992, OMC completed a sediment remediation project in the harbor (OU1) that entailed the dredging, treatment, and disposal of about 38,000 cubic yards (yd³) of PCB-contaminated sediment from the northern portion of the harbor. The dredging was conducted to achieve a cleanup level of 50 parts per million (ppm) for total PCBs. Sampling of surficial sediments conducted in 1996 indicated moderate levels of PCB contamination throughout the entire harbor.

Analytical results of fish samples collected from Waukegan Harbor between 1996 and 2001 indicate that fish tissue samples still contained high levels of PCBs. The total PCB concentrations detected in sediments ranged up to a maximum of 36.6 ppm, with an average concentration of about 2 to 3 ppm. A risk evaluation performed in 2006 estimated that to achieve acceptable PCB levels in fish (for unrestricted consumption), PCB levels in sediments would need to be lowered to an overall surfaceweighted average concentration of 0.2 ppm (CH2M 2006).

An estimated total of 124,244 yd³ of PCB-impacted sediment was hydraulically dredged and conveyed to geotextile tubes in a consolidation facility (CF) on the OMC Plant 2 Site for dewatering. After the environmental dredging was completed, navigational dredging removed an additional 9,735 yd³ of sediment.

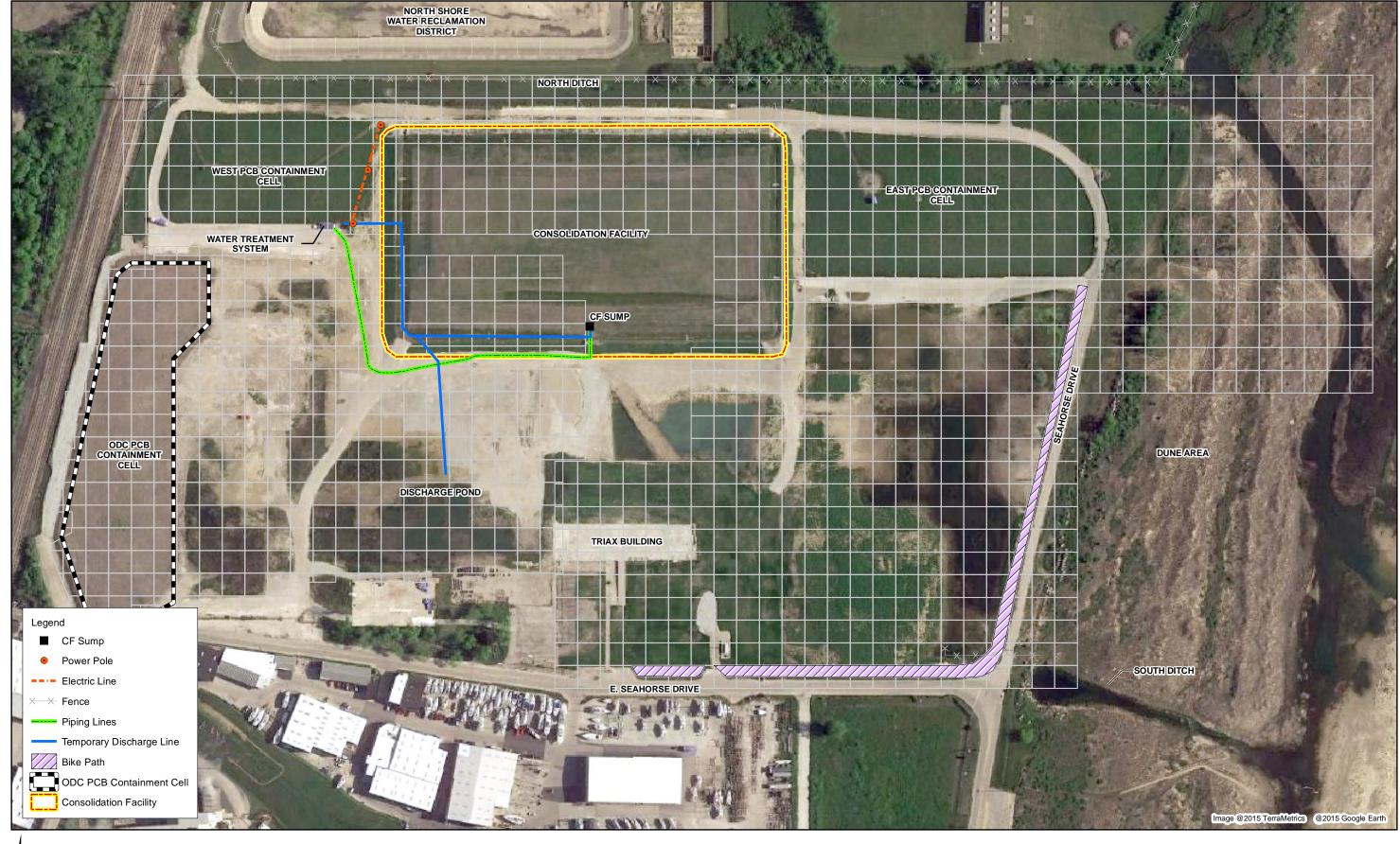


Figure 1 Site Plan OMC Waukegan Harbor OU1 Waukegan, IL

200

Feet

400

The sediment processing and water treatment system treated water from dredging and dewatering operations by processing an average of 1.2 million gallons per day. After dredging was completed in 2014, the processing system was decommissioned, and the geotextile tubes within the CF were isolated from the environment using a clay/soil cover. The CF was connected to a new 50-gallon-per-minute (gpm) water treatment system (WTS) constructed to handle the combined flow from the existing west PCB containment cell, the infiltration through the CF cover, and the groundwater extracted from the newly constructed cell that was built to contain PCB-contaminated soils beneath the western portion of the OMC Plant 2 building, referred to hereinafter as the old die cast (ODC) PCB cell. The completion of the sediment remedy is documented in the *Remedial Action Completion Report, OMC Waukegan Harbor Site (OU1)* (CH2M 2014).

Remedial action activities were implemented by SulTRAC in 2014 to address high levels of PCB-contaminated subsurface soils beneath the western portion of the former Plant 2 building that was the ODC area and in the utility corridors along the western and northern property boundaries. The construction activities included installation of a soil-bentonite slurry wall and cap to contain the PCB-contaminated subsurface soil within the ODC PCB cell and paving the utility corridors.

1.2 Purpose

Overall, the purpose of this project is to complete the Waukegan Harbor (OU1) remedial action, which includes operation of the WTS that treats the influent from the CF and the two PCB containment cells (the west PCB cell and the ODC PCB cell) that were constructed to manage PCB-contaminated soil and sediment. Operation of the WTS was transferred to the Illinois EPA on November 6, 2020. These cells require maintaining an inward gradient by extracting water from inside the cells to levels below the groundwater levels outside of the cell. The extracted water from these cells is pumped to the WTS for treatment. The original design, construction, and initial operations included discharging the WTS effluent to the North Ditch.

In February 2015, Illinois EPA recommended criteria for discharge to the North Ditch that were lower than the design limits and included limits on additional parameters that are not treated by the WTS. A comparison of the effluent concentrations from the WTS and Illinois EPA's recommended discharge criteria indicated potential exceedances of the daily maximum criteria for ammonia, arsenic, and iron; the 30-day average discharge criteria for ammonia; and the annual limits for total PCBs, mercury, and vinyl chloride. The operation of the WTS was halted, and other options for the discharge location were evaluated. Because the extraction systems of the two PCB containment cells needed to be operated to establish and maintain inward gradients, the short-term solution that was approved by EPA and Illinois EPA, implemented by CH2M, and involved diverting the treated effluent into the CF sump for temporary storage or discharged to an onsite pond. The long-term solution is to connect the WTS to a newly constructed treatment wetland system. The design of the 1.6-acre wetland that will manage the effluent from the WTS was approved by EPA. The construction of the infiltration treatment wetland is the focus of this remedial action.

1.3 Remedial Action Objectives and Goals

The primary objective of this remediation project is to address the following risk-related remedial action objectives presented in the Record of Decision Amendment (EPA 2009):

- Protect human health and the environment from the adverse effects of PCBs attributable to the site.
- Reduce PCBs in sediment throughout the harbor to a remedial action level of 1 ppm at any single location and an overall surface-weighted average concentration of 0.2 ppm.
- Minimize potential human health and environmental risks that may be associated with remedial activities to the extent practicable.

2.0 Components of the Infiltration Wetland Remedial Action

CH2M was contracted by EPA to complete the remedial action at the OMC Waukegan Harbor Site. The remedial activities included wetland construction, emergency spillway installation, monitoring well extensions, construction of a cascade inlet to the wetland, installation and connection of conveyance piping from the WTS to the cascade inlet, animal control measures installation, and site restoration, including maintenance watering for the sod and hydroseeded areas. The following subsections summarize construction activities associated with the remedial activities.

2.1 Mobilization, Site Preparation, and Demobilization

The prime subcontractor associated with the construction activities was Job Site Services, Inc. (JSS) located in Bay City, Michigan. JSS subcontracted various portions of the scope of work to lower-tier subcontractors, including:

- GPRS (Chicago, Illinois) utility locating
- IMEG Corp. (Gurnee, Illinois) surveying
- Soil and Material Consultants, Inc. (Arlington Heights, Illinois) soil compaction testing
- Tallgrass Restoration, LLC (Schaumburg, Illinois) wetland plant installation
- Acres Group (Roselle, Illinois) sod installation, hydroseeding, landscaping, and maintenance/watering activities
- Eurofins TestAmerica (University Park, Illinois) analytical testing
- A&L Great Lakes Laboratories (Fort Wayne, Indiana) agricultural testing of topsoil

The subcontractor mobilized to the site on June 29, 2020, and set up the necessary staff, equipment, and materials prior to construction. GPRS located utilities on June 29, 2020. The subcontractor established temporary construction facilities and staging areas and prepared the site for work on June 30, 2020. An initial migratory bird and threatened and endangered species survey was conducted before intrusive field activities from June 29 to July 1, 2020. One active nest and four empty nests were found. On July 2, 2020, CH2M field staff collected the migratory bird nests identified during the field assessment and delivered the nests to Chicago Bird Collison Monitors for relocation. A preconstruction topographic survey for the infiltration wetland and discharge line was completed on June 29, 2020. Additional site preparation activities included installing erosion-control features and clearing and grubbing vegetation.

Staff and equipment began demobilizing from the site on August 12, 2020. Prior to demobilizing, work areas were cleaned, and all debris and rubbish related to construction activities were removed. Final demobilization, including removal of the site trailer and tool trailer, occurred on August 20, 2020. Maintenance watering activities continued after demobilization.

2.2 Wetland Construction Activities

Site civil activities associated with this project included: excavating wetland basins, dewatering, constructing wetland embankments using excavated soil, grading the embankments, constructing an emergency spillway, conducting final grading of disturbed areas, and removing the temporary WTS discharge line.

The infiltration wetland consists of an impoundment constructed of earthen berms and vegetation to contain, treat, and infiltrate the effluent from the WTS. The berms were constructed from onsite material excavated to create deep zones and marsh zones throughout the wetland footprint. The transition between deep zone and emergent marsh zone was constructed at a 3:1 slope and

REMEDIAL ACTION PROJECT COMPLETION REPORT INFILTRATION TREATMENT WETLAND CONSTRUCTION OMC WAUKEGAN HARBOR SITE, WAUKEGAN, ILLINOIS

excavated to approximately 2 feet below existing grade. The wetted area of the infiltration wetland is 0.8 acre, as shown on the Record Drawings in Attachment 1. Accounting for berms, the total wetland area is 1.6 acres. The water that enters the new infiltration wetland system is conveyed through a new pipe from the existing WTS.

The berms were constructed by placing excavated materials in lifts and compacting the soil to a minimum of 95 percent relative compaction. Soil and Material Consultants, Inc. tested the compaction of each lift using an in-place nuclear densitometer. Soil was conditioned for moisture as necessary to meet compaction requirements. Attachment 2 contains compaction test results.

After the berm subgrade was constructed using onsite soils, 6 inches of topsoil was placed over the berms in areas where sod was installed. Topsoil was sourced from Lorens' Excavating in Kenosha, Wisconsin. The topsoil was tested for chemical analysis, physical properties, and agricultural testing. Chemical analyses included target compound list (TCL) volatile organic compounds, TCL semivolatile organic compounds, TCL pesticides, TCL herbicides, TCL PCBs, and target analyte list (TAL) total metals. The topsoil was confirmed to have chemical concentrations below design specifications (test results are included in Attachment 2).

During excavation activities, the construction area was dewatered by constructing a sump to provide a central dewatering point (shown on the Record Drawings in Attachment 1). A 4-inch diesel pump and hose were used to pump water from the sump to the designated discharge point (an adjacent onsite pond). Water was filtered using filter bags prior to discharge to the pond.

The infiltration wetland was constructed with an emergency discharge to prevent water levels from rising closer than 6 inches from the top of the berm. The emergency spillway, which was constructed at the southeast area of the wetland (Attachment 1) is equipped with a geogrid filled with the same fill material used to construct the berms and sod to prevent erosion.

Two existing monitoring wells (OMC-MW-600S and OMC-MW-600D) are located within the center berm of the constructed wetland. The well risers, protective casings, and bumper posts were extended above the new grade elevations of the berm. IMEG Corp. surveyed the new top-of-casing elevations, which were provided on the final as-built survey (Attachment 1).

2.3 Conveyance Piping and Cascade Inlet

Piping and mechanical installation construction activities included installing WTS effluent piping with associated fittings, valves, and appurtenances; constructing the cascade inlet; and installing a 2-inch force main from the WTS to the cascade inlet.

A new 2-inch-diameter high-density polyethylene (HDPE) pipe was constructed to convey effluent water from the WTS to the wetland inlet zone. The subcontractor installed 2-inch HDPE SDR-17 conveyance piping and a cascade inlet, including the connection of the 2-inch conveyance piping to the cascade inlet from August 3, 2020, to August 7, 2020. A manual butterfly valve was located and placed on the pipe just before the pipe enters the wetland, as shown on the Record Drawings in Attachment 1. An inlet pipe entering a precast concrete box was constructed to divert any overflow onto the cascade step passive aeration system.

The discharge piping route from the treatment wetland to the WTS was constructed over an existing slurry wall, including a concrete cap at a depth of 2 feet bgs. On August 10, 2020, the WTS was switched to discharge to the wetland through the cascade inlet. The subcontractor surveyed the final alignment of the installed pipe with an Illinois-certified surveyor from August 11, 2020, to August 12, 2020, and generated the final record drawing (Attachment 1).

2.4 Fencing and Animal Control Measures

The subcontractor installed muskrat exclusion fence along the interior of the embankments around the perimeter of the wetland to minimize muskrat access to the wetland plants. The muskrat exclusion fence consisted of 14-gauge galvanized wire mesh, galvanized fence posts, and 45-degree arms at the top of the mesh. The fence was installed to a minimum depth of 2 feet below ground surface to prevent burrowing. The subcontractor also installed goose scare tape across the wetland basins in a cross-pattern to discourage geese from accessing the wetted areas. The goose scare tape consisted of highly reflective holographic tape suspended on two monofilament lines supported by posts.

2.5 Restoration

Landscaping at the wetland consisted of three different landscape zones. The wetland was divided into three planting zones described as deep zone, emergent edge, and emergent marsh. The wetland was planted with native species adapted to different water depths within the deep zones and the marsh zones. The subcontractor provided and installed wetland plants in these planting zones using potted and bare-root wetland plants at the planting rates equal to or greater than those shown in the design drawings. Plant material was kept moist and covered to protect from drying prior to planting.

Table 1. Wetland Plants Installed

OMC Waukegan Harbor Site, Waukegan, Illinois

Botanical Name	Design Quantity	Quantity Planted
Nuphar advena	670	670
Nymphaea tuberosa	546	546
Schoenoplectus acutus	433	450
Acorus calamus	1,416	1,450
Pontetoria cordata	1,531	1,550
Cephalantus occidentalis	28	28
Schoenoplectus tabernae	1,537	1,550
Sparganium eurcarpum	585	600
Juncus effusus	260	300
Spartina pectinata	411	450
Total	7,417	7,594

Outside of the wetland planting zones, the subcontractor installed sod along the slopes and tops of the embankments in accordance with the design. Prior to sod placement, the topsoil was amended with fertilizers as recommended based on agricultural soil testing results. Sod placement occurred from August 10 through 12, 2020. Kentucky bluegrass sod was harvested from Lurveys Sod Farm, LLC in Whitewater, Wisconsin, and delivered on pallets to the site within 24 hours of harvest. The sod was inspected for acceptability, hand-placed, rolled, and watered. Sod was then watered and maintained for 30 days. Areas disturbed by construction activities outside the wetland berms were graded and restored with hydroseed. Hydroseeded areas were watered and maintained for 60 days in accordance with the design. The final site inspection on October 19, 2020, confirmed that an adequate stand of grass had been established.

2.6 Deviations from Design

Some deviations from the design documents were made with the acceptance of the engineer-of-record. These deviations are documented in the Requests for Information (RFI) and RFI log included in Attachment 3. Significant changes to the design, or those that changed the total project cost, were accepted by both the engineer-of-record and EPA. All changes to the design are reflected on the record drawings in Attachment 1. Deviations from the design include:

- Muskrat fence detail
- Concrete slab and debris removal
- Unsuitable soil removal (during clearing and grubbing activities)
- Waste characterization and disposal activities (offsite disposal of unsuitable soils, vegetative material, concrete, and debris)
- · Alternate security fence design

Table 2. Summary of Significant Differences from Design OMC Waukegan Harbor Site, Waukegan, Illinois

Request for Information No.	Design Component	Description of Deviation		
RFI-003	Muskrat Fence Detail	Originally, the fence post was to be notched and the top bent over to create the 45-degree angle. Instead, A 14-gauge galvanized 1-inch-by 1-inch wire mesh 60 inches tall, 2-inch galvanized fence pipe, 5-foot posts, and 2-inch, 45-degree fence toppers were used. The fabric was fastened every 6 inches above grade and trenched into the ground or a slightly offset angle based on the original construction design.		
RFI-006	Concrete Slab and Debris Removal	While clearing and grubbing, an unknown concrete slab not represented on the drawings was encountered. The concrete slab was approximately 22 feet wide by 14 inches long by 3 feet thick. The observed concrete slab surface elevation was 585.32. The slab was directly within the proposed berm alignment. Subcontractor was advised to remove the concrete prior to constructing the berm.		
		In addition to the concrete slab, several concrete slabs (8 inches by 8 inches by various depths) were discovered and removed.		
RFI-007	Security Fence Alignment	The fence alignment was proposed to encompass all electrical equipment, including the power pole and transformers, and be installed along the east edge of the existing concrete pad in that area. The double swing gate was proposed to be relocated to the south side of the fence and placed in front of the WTS to allow for easy access to the WTS panel doors. The pedestrian gate was proposed to be relocated to the west side of the fence enclosure.		

Table 2. Summary of Significant Differences from Design

OMC Waukegan Harbor Site, Waukegan, Illinois

Request for Information No.	Design Component	Description of Deviation		
RFI-11	Management, loading, transportation, and offsite disposal	Removal, management, loading, transport, and disposal of 8 concret foundations (8 feet by 8 feet by 2 feet) uncovered during excavation		
	of various waste streams	Loading, transport, and disposal of abandoned pipes and miscellaneous debris uncovered during excavation.		
		Loading, transportation, and disposal of vegetative debris and soils that were stripped during site clearing that are unsuitable for use onsite.		
		Waste characterization testing of waste streams.		
		All waste streams were disposed as nonhazardous waste at a landfill operated by Advanced Disposal in Zion, Illinois. See Attachment 4 for waste disposal documentation and waste tracking log.		
RFI 12A	Alternate security fence installation design	Due to the shallow depth of the West Containment Cell HDPE liner, which is also present beneath the asphalt area, the chain-link fence could not be installed as designed. CH2M redesigned the fence installation details to include reinforced concrete footers to a maximum depth of 18 inches and a reduction of privacy slats to 50% coverage. EPA ultimately decided not to complete the security fence installation due to the increased costs associated with the updated design.		

2.7 Construction Timeline

Construction activities for the treatment wetland system were conducted between June 29 and August 20, 2020. Table 3 presents a chronological summary of major events and dates associated with the construction of the treatment wetland system. Attachment 5 contains representative photographs of the construction activities.

Table 3. Chronology of Major Events for Infiltration Wetland Construction

OMC Waukegan Harbor Site, Waukegan, Illinois

Definable Feature of Work	Start Date	End Date
Mobilization (DFOW 1)	6/29/2020	6/29/2020
Site Civil Activities (DFOW 2)		
Utility locating	6/29/2020	6/29/2020
Equipment delivery and facilities construction	6/30/2020	6/30/2020
Excavation limits	7/7/2020	7/7/2020
Preconstruction surveys	7/7/2020	7/7/2020
Protection of property	6/29/2020	8/12/2020
Soil erosion/sediment control measures	6/30/2020	7/14/2020
SWPPP implementation	6/30/2020	7/10/2020
Clearing, grubbing and environmental controls	6/29/2020	7/1/2020

Table 3. Chronology of Major Events for Infiltration Wetland Construction

OMC Waukegan Harbor Site, Waukegan, Illinois

Definable Feature of Work	Start Date	End Date
Waste disposal	8/18/2020 10/7/2020	8/18/2020 10/7/2020
Dewatering	7/1/2020	8/6/2020
Monitoring well repair/modifications	7/20/2020	7/27/2020
Site and final grading	7/9/2020	7/27/2020
Wetland embankments with emergency spillway	8/3/2020	8/6/2020
Landscaping	8/4/2020	8/12/2020
Demolition of temporary discharge line	7/25/2020	7/25/2020
Treatment Inlet Cell Construction (DFOW 3)		
Wetland cell construction, embankment construction, and fine grading	7/1/2020	7/27/2020
Wetland Planting	8/4/2020 8/17/2020	8/6/2020 8/17/2020
Sod Installation	8/11/2020	8/13/2020
Hydroseeding	8/17/2020	8/17/2020
Animal control measures	6/29/2020	8/19/2020
Piping and Mechanical Installation (DFOW 4)		
Effluent piping	8/7/2020	8/7/2020
Cascade Inlet (DFOW 5)	8/3/2020	8/5/2020
Site Restoration (DFOW 6)	8/11/2020	8/12/2020
Demobilization (DFOW 7)	8/12/2020	8/20/2020
Sod Maintenance Watering (DFOW 8)	8/12/2020	09/11/2020
Hydroseed Maintenance Watering (DFOW 8)	8/17/2020	10/15/2020

2.8 Quality Control/Inspections

Quality control (QC) actions taken by CH2M and the construction subcontractor were completed to confirm materials and workmanship met the requirements of the subcontract and the applicable drawings and specifications. QC components included inspections, testing, submittals, and RFIs.

QC activities included the following:

- Confirming the work being performed meets the design.
- Maintaining tracking logs for the measured unit price quantities in the schedule of values.
- Inspecting materials arriving to the site for conformance to the specifications.
- Inspecting to verify that the proper materials and the proper quantity of materials were being installed.
- Confirming that testing was completed at the required interval to verify the materials were placed and completed in a manner that met the design.

Additional environmental inspections were conducted and are discussed in Section 3.

Daily reports included the results of inspections. Attachment 1 contains record drawings. Attachment 2 contains the soil testing results. Attachment 4 contains the waste tracking logs and waste disposal documentation.

2.9 Certifications of Acceptance

The construction of the treatment wetland system was accepted by CH2M as complete on August 12, 2020.

3.0 Summary of Construction Costs

Table 4 presents a cost summary of the major construction subcontracts.

Table 4. Project Costs for Infiltration Treatment Wetland

OMC Waukegan Harbor Site, Waukegan, Illinois

Bid Item	Description	Quantity	Unit of Measure	Unit Price (\$)	Total Cost (\$)
1	Payment and Performance Bond	1	LS	\$6,200.00	\$6,200.00
2	Insurance	1	LS	\$9,000.00	\$9,000.00
3	Preconstruction Meeting and Premobilization Submittals	1	LS	\$19,350.20	\$19,350.20
4	Mobilization/Demobilization, Temporary Facilities and Controls, Third Party Utility Locate	1	LS	\$55,000.00	\$55,000.00
5a	Clearing and Grubbing	2.59	AC	\$7,500.00	\$19,425.00
5b	Clearing and Grubbing Offsite Disposal	0	СҮ	\$22.00	\$0.00
6	Excavation/Embankment	5,036	СУ	\$24.00	\$120,859.68
7	Site Grading	12,526	SY	\$6.00	\$75,156.67
8	Install Cascade Inlet	1	LS	\$28,000.00	\$28,000.00
9	Emergency Spillway	216	SF	\$35.00	\$7,560.00
10	Install New 2-inch SDR-17 Conveyance Pipe	148	LF	\$75.00	\$11,100.00
11	Install Chain Link Fence ¹	0	LF	\$91.00	\$0.00
12	Fence Installation-Privacy Slats ¹	0	SF	\$3.85	\$0.00
13	Fence Installation-Double Swing Gate (20 feet wide) $^{\mathrm{1}}$	0	LS	\$2,575.00	\$0.00
14	Fence Installation-Singe Gate (10 feet wide) ¹	0	LS	\$1,525.00	\$0.00
15	Muskrat Exclusion Fence	1,215	LF	\$30.00	\$36,450.00
16	Goose Scare Tape	6,980	LF	\$1.20	\$8,376.00
17	Monitoring Well Casing Extension	2	EA	\$1,685.00	\$3,370.00
18	Imported Topsoil	527.51	СҮ	\$90.00	\$47,475.90

Table 4. Project Costs for Infiltration Treatment Wetland

OMC Waukegan Harbor Site, Waukegan, Illinois

Bid Item	Description	Quantity	Unit of Measure	Unit Price (\$)	Total Cost (\$)
19	Restoration-Supply/Plant/Install Wetland Plants	1	LS	\$118,000.00	\$118,000.00
20	Restoration-Supply/Plant/Maintain Sod	3,161.11	SY	\$25.00	\$79,027.78
21	Site Surveys	1	LS	\$23,000	\$23,000
Change Ord	lers				
CO #1	Fence Extension - Change Order 1 ¹	0	LF	\$91.00	\$0.00
CO #1	Privacy Slats - Change Order 1 ¹	0	SF	\$3.85	\$0.00
CO #1	Concrete Slab removal - Change Order 1	1	LS	\$12,997.11	\$12,997.1
CO #2	Pipe/Footer Removal (RFI 011A, Item 1) - Change Order 2	1	LS	\$9,275.78	\$9,275.78
CO #2	LT&D Concrete (RFI 011A, Item 2) - Change Order 2	213.20	TON	\$76.72	\$16,356.70
CO #2	LT&D debris (RFI 011A, Item 3) - Change Order 2	1	LS	\$2,239.55	\$2,239.5
CO #2	LT&D soils/phragmites (RFI 011A, Item 4) #2 Change Order 2 – see Optional Bid Item 10.		Tons	\$35.00	\$0.00
CO #2	Waste Characterization (RFI 011A, Item 5) - Change Order 2	1	LS	\$3,584.68	\$3,584.6
CO #2	Bonds Incr (RFI 011A, Item 6)	1	LS	\$529.74	\$529.7
CO #2	Insurance Incr (RFI 011A, Item 7)	1	LS	\$1,093.11	\$1,093.13
Optional Bio	d Items				
1	Standby Time (Includes Labor, Equipment, etc.)	0	CREW HOUR	\$650.00	\$0.00
2	Per Diem and Allowances	0	DAY	\$1,020.00	\$0.00
3	Silt Fence Relocation/Replacement	0	FT	\$5.00	\$0.00
4	Construction Safety Fence Relocation	0	FT	\$15.00	\$0.0
5	Backfill - Supply Class II Sand	0	TON	\$23.00	\$0.0
6	Backfill - Supply 21AA Gravel	0	TON	\$35.00	\$0.0
7	Backfill - Supply Pea Gravel	0	TON	\$27.00	\$0.0
8	Muskrat Exclusion Fence	0	LF	\$39.00	\$0.0
9	Goose Scare Tape	625	LF	\$1.00	\$625.0
10	Handling and Coordination of Offsite Waste Disposal - Nonhazardous Soil	483.40	TON	\$35.00	\$16,918.83

Table 4. Project Costs for Infiltration Treatment Wetland

OMC Waukegan Harbor Site, Waukegan, Illinois

Bid Item	Description	Quantity	Unit of Measure	Unit Price (\$)	Total Cost (\$)
11	Handling and Coordination of Offsite Waste Disposal - Hazardous Soil	0	TON	\$325.00	\$0.00
12	Handling and Coordination of Offsite Waste Disposal - Nonhazardous Liquid	0	GAL	\$1.00	\$0.00
13	Handling and Coordination of Offsite Waste Disposal - Hazardous Liquid	0	GAL	\$8.00	\$0.00
14	Wetland Planting Maintenance	0	EA	\$8,500.00	\$0.00
			Sı	bcontract Total:	\$730,971.72

Notes:

AC = acre

CY = cubic yard

EA = each

FT = foot

GAL = gallon

LF = linear feet

LS = lump sum

SY = square yard

4.0 References

CH2M HILL, Inc. (CH2M). 2006. Remedial Investigation Report, OMC Plant 2, Waukegan, Illinois. April.

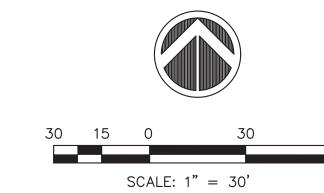
CH2M HILL, Inc. (CH2M). 2014. Remedial Action Completion Report, OMC Waukegan Harbor Site (OU1).

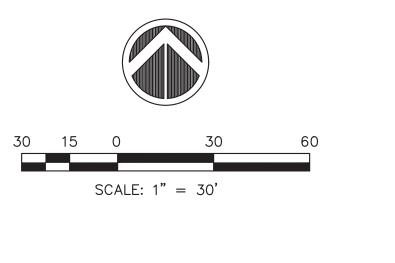
CH2M HILL, Inc. (CH2M). 2020. *Infiltration Treatment Wetland Design, OMC Waukegan Harbor Site, Waukegan, Illinois Final Basis of Design Report*. May.

U.S. Environmental Protection Agency (EPA). 2009. *Record of Decision Amendment, Outboard Marine Corporation Superfund Site, Waukegan, Illinois*. October.

¹ EPA elected not to complete the security fence installation around the WTS (Bid Items #11 – 14 and the fence extension in Change Order #1) due to increased costs associated with the re-design of the chain-link fence (see RFI 012A).

Attachment 1 Record Drawings





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7304.33	AREA	584.05 * 584.46 EMER	GENCY 584.66	
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587 LF OF SILT FENCE - 584.3		× 583.82		
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	× 584.42 × 584.67 584.96	\		
	× 584.4		▼ 583.25 ▼ 583.03	
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	× 584.91 584.7	582.87		
		y 583.08		
	* 585 18	34.13		
58 <u>4</u> 585 585	88 04 04 585.18	\$84.44 / 583.27		
	W.T.	584.32 584.20		

383 LF OF SILT FENCE

AS-BUILT LOCATION
OF 2" HDPE DR11
WATER LINE
59
PER CONTRACTOR

		A TIONIC			
FINAL SURVEY CALCULATIONS					
	TOTAL CUT/FILL	330.52 CU. YD. (CUT)			
AREA INSIDE	TOTAL GRADING AREA	112735 SQ. FT.			
\(\psi\) \(\	TOTAL SOD AREA	28450 SQ. FT.			
AREA INSIDE	TOTAL CLEARING AND GRUBBING AREA	112735 SQ. FT.			
alliz alliz alliz	TOTAL HYDROSEED AREA	47080 SQ. FT.			

Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
COMPARISON	1.00	1.00	139209.48 Sq. Ft.	4108.92 Cu. Yd.	3778.40 Cu. Yd.	330.52 Cu. Yd. <cut></cut>
Totals			139209.48 Sq. Ft.	4108.92 Cu. Yd.	3778.40 Cu. Yd.	330.52 Cu. Yd. <cut></cut>



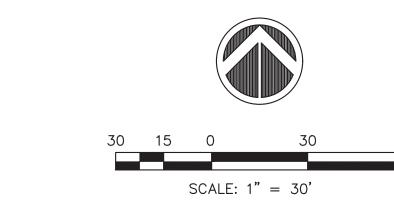
OMC WAUKEGAN OU1 WAUKEGAN, ILLINOIS

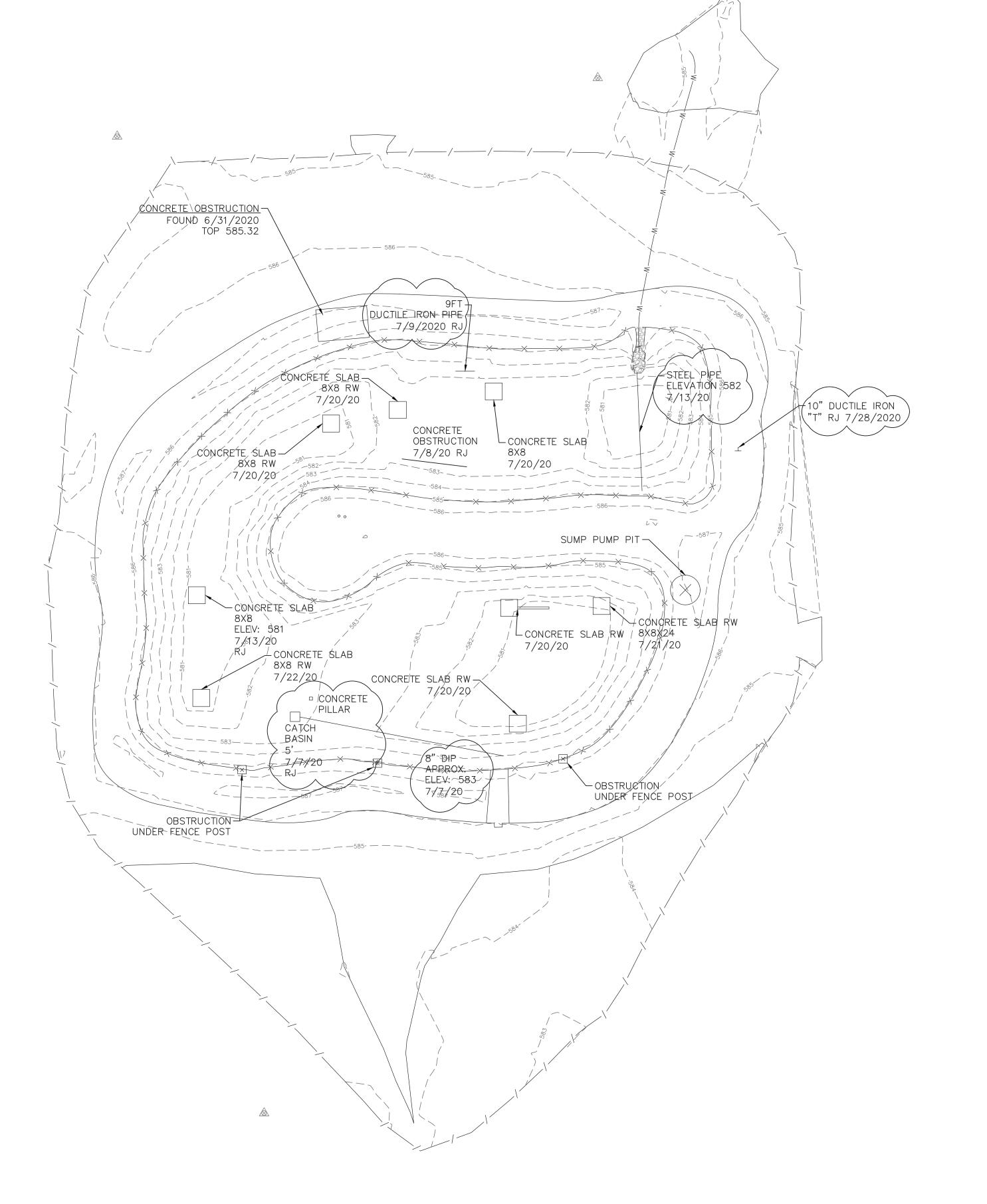
IMEG Project No: 20002845.00 File Name:

OMC Final As Built 08-18-20.dwg © COPYRIGHT 2020 ALL RIGHTS RESERVED Field Book No:####

Drawn By: KK Checked By: HMD

Date: 08/19/2020





No. DESCRIPTION

4850 GRAND AVENUE
GURNEE, IL 60031

Illinois Design Firm Registration #184.007637-0014

OMC WAUKEGAN OU1
WAUKEGAN, ILLINOIS
RED - LINE MARK UP

IMEG Project No: 20002845.00

File Name:
OMC Final As Built 08-18-20.dwg
COPYRIGHT 2020
ALL RIGHTS RESERVED
Field Book No:####

Drawn By: KK
Checked By: HMD

Date: 08/19/2020

Sheet 1 of 1

<u>NOTE:</u> OBSTRUCTIONS PER CONTRACTORS FIELD SKETCH.

Attachment 2 Soil Proctor, Compaction, and Analytical Results

SOIL AND MATERIAL CONSULTANTS, INC.

8 WEST COLLEGE DRIVE ARLINGTON HEIGHTS, IL 60004 OFFICE: (847) 870-0544 FAX: (847) 870-0661 TRANSMITTAL July 29, 2020 File No. 25300

Page 1

Mr. Nate Hehir JOB SITE SERVICES, INC. 4395 Wilder Road

Bay City, MI 48706

Re: Jacobs US EPA Wetland Construction

> 100 Seahorse Drive Waukegan, Illinois

Dear Sir or Madam:

We are submitting the following:

PLANT:

Aggregate..

Asphalt..... Concrete..... Soil..... Other.....

FIELD:

Aggregate..

Asphalt.....

Concrete....

Soil.....Report of Testing, Sketch, Compaction 7/13, 7/14

Other.....

LABORATORY: Aggregate..

Asphalt..... Concrete..... Soil..... Other.....

REMARKS:

Copies to:

Very truly yours,

SOIL AND MATERIAL CONSULTANTS, INC.

Reid T. Steinbach, P.E. Director of Engineering

SOIL AND MATERIAL CONSULTANTS, INC.

8 WEST COLLEGE DRIVE ARLINGTON HEIGHTS, IL 60004 OFFICE: (847) 870-0544 FAX: (847) 870-0661 REPORT OF TESTING 7/29/20 File No. 25300

Page 2

Re: Jacobs US EPA Wetland Construction, 100 Seahorse Drive, Waukegan, Illinois

July 13, 2020-Soil Field

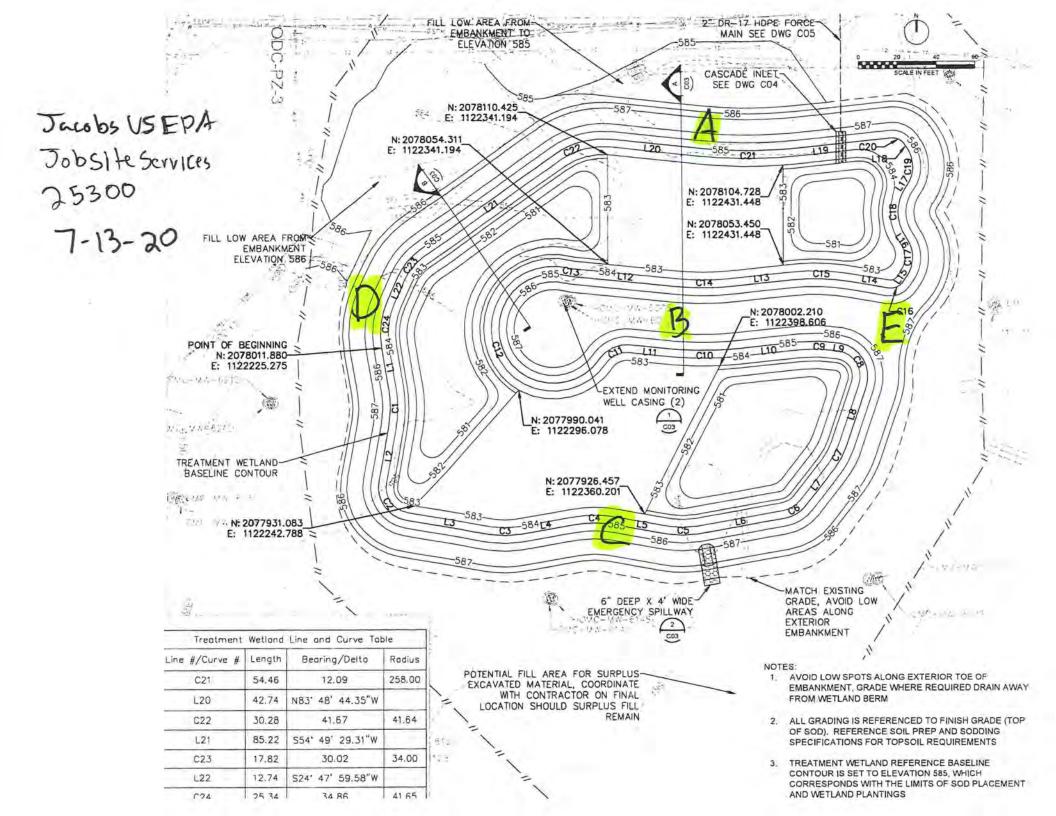
The contractor placed brown sand fill in 8-inch to 12-inch lifts in the locations shown on the attached sketch and compacted with a smooth drum rubber tire roller. The compaction results ranged from 95.5% to 98.6% with moisture contents of 8.2% to 12.2%.

July 14, 2020-Soil Field

The contractor placed brown sand fill in 8-inch to 12-inch lifts in the locations shown on the attached sketch and compacted with a smooth drum rubber tire roller. The compaction results ranged from 97.4% to 98.2% with moisture contents of 9.1% to 11.8%.

The contractor placed an additional lift after passing results. Elevated moisture contents were present in this additional lift and will require drying prior to compaction.

Engineering Staff- A. Dumdie



REPORT OF COMPACTION

Date: 7-13-20

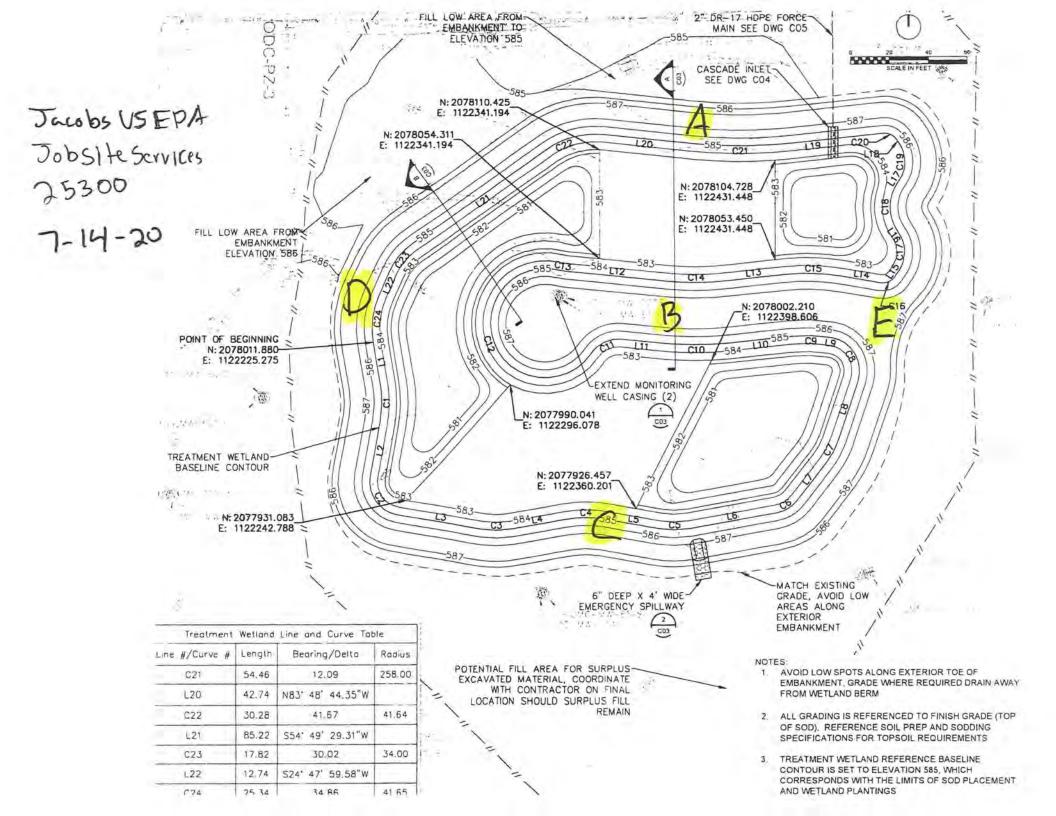
File No.: 25300

Client: Job S: Le Services Project: Jacobs VS EPA Wetland

Test Method: Nuclear or Other: 5 17 0 8 6

	W PER WAS ALL Y	Maximum Dry or	%	Proctor I	Method	Voidless
	Soil or Material	Bulk Density	Moisture	Standard /	Modified	Mass
Type	Classification/Description	(lbs/cu.ft.)	Content	D-698 /	D-1557	D-2041
Α	Coarse Brown Sand	117,0	10.306	Х		
В	Fine Brown Saral	1725	16010	7		

Test No.	L ocation	Offset or Elev.	TYPE	Dry or Bulk Density (lbs/cu.ft.)	% Moisture Content	% of Maximum	Minimum Required	PASS
	A	5 83.5	B	117.7	6.2	96.1	950	V
	3	5840	A	113,7	11.2	97.2		V
		5 830	B	117,4	10,4	95.8		1
)	5815	B	119.4	6.4	97.5		V
	12	5 955	A	115,1	17,01	98.4		1
	A	5895	B		9.8	95.Q		V
	3	5850	AB	114,4	10,9	97.8		V
	Ç	581.0	B	118.2	9.1	96,5		V
	A	3 855	B	12011	8,3	960		V
	B	586	8	115.4	92.	9.8.6		\vee
	C	564.0	B	118.3	93	966		V
	Ď	585,5		118.8	8.7	970		V
		580	B	117.6	10.1	96.0	V	V



8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

REPORT OF COMPACTION

Date: 7-14-20

File No.: 25306

Client: Job	Site Services	Project: Jacobs USEPA Wellands
Test Method:	Nuclear or ☐ Other:_	5N7084

Туре	Soil or Material Classification/Description	Maximum Dry or Bulk Density (lbs/cu.ft.)	% Moisture Content	Proctor Standard / D-698 /	Method Modified D-1557	Voidless Mass D-2041
Α	Coarse Burnstenel	117,0	10.2	7		
В	Fine Briansard	122.5	7,6			

Test No.	Location	Offset or Elev.	TYPE	Dry or Bulk Density (lbs/cu.ft.)	% Moisture Content	% of Maximum	Minimum Required	P A S S	F A I L
	A	586.5	13	120.3	9,1	94.2	95%		
	P	586.5	A	113,9	11.8	97.4			
	12	5865	+	114.6	10.7	97,9	V		
									-

SOIL AND MATERIAL CONSULTANTS, INC.

8 WEST COLLEGE DRIVE ARLINGTON HEIGHTS, IL 60004 OFFICE: (847) 870-0544 FAX: (847) 870-0661 TRANSMITTAL July 30, 2020 File No. 25300

Page 1

Mr. Nate Hehir JOB SITE SERVICES, INC. 4395 Wilder Road Bay City, MI 48706 Re: Jacobs US EPA Wetland Construction 100 Seahorse Drive Waukegan, Illinois

Dear Sir or Madam:

We are submitting the following:

PLANT: Aggregate..

Asphalt......
Concrete.....
Soil......
Other.....

FIELD: Aggregate..

Asphalt......
Concrete....

Soil.....Report of Testing, Sketch, Compaction 7/21

Other.....

LABORATORY: Aggregate..

Asphalt......
Concrete.....
Soil.....
Other.....

REMARKS:

Copies to: Very truly yours,

SOIL AND MATERIAL CONSULTANTS, INC.

Reid T. Steinbach, P.E. Director of Engineering

SOIL AND MATERIAL CONSULTANTS, INC.

8 WEST COLLEGE DRIVE ARLINGTON HEIGHTS, IL 60004 OFFICE: (847) 870-0544 FAX: (847) 870-0661 REPORT OF TESTING 7/30/20 File No. 25300

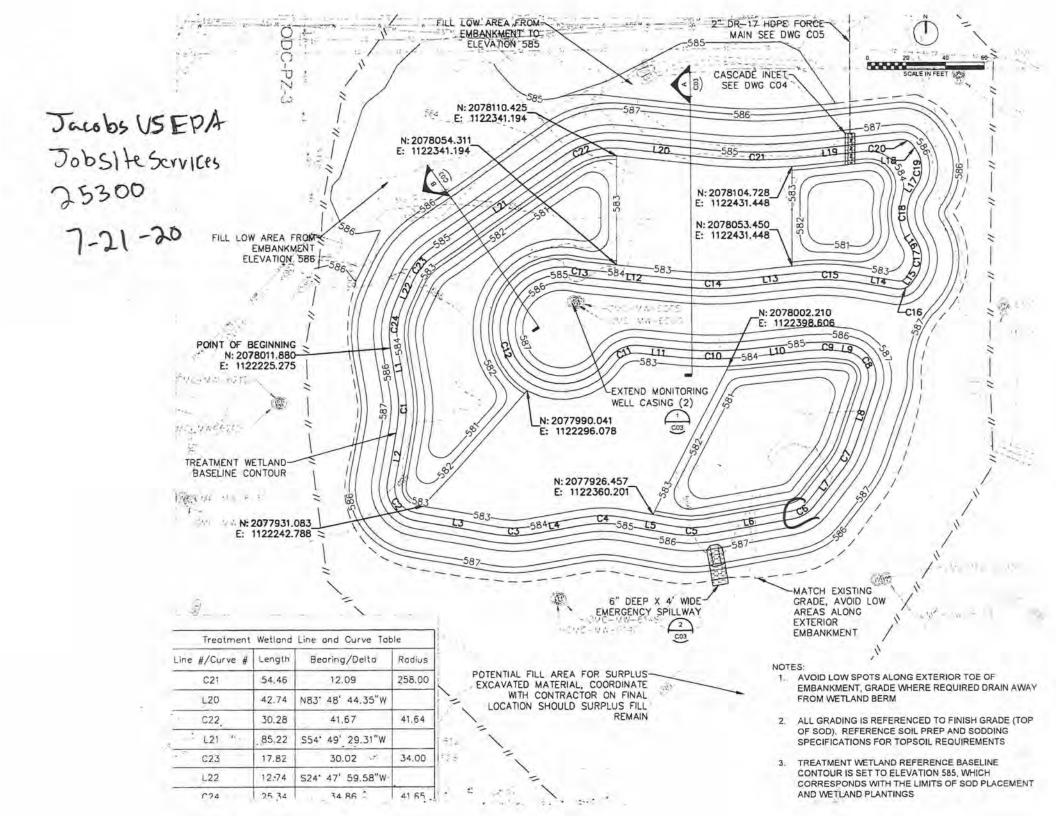
Page 2

Re: Jacobs US EPA Wetland Construction, 100 Seahorse Drive, Waukegan, Illinois

July 21, 2020-Soil Field

The contractor placed sandy fill soils in the locations shown on the attached sketch in approximately 6-inch to 8-inch lifts and compacted with a smooth drum rubber tire roller. The compaction results ranged from 96.0% to 96.4% with moisture contents of 9.8% to 10.1%.

Engineering Staff- A. Dumdie





REPORT OF COMPACTION

Date: 7-21-26

File No.: 25300

Client: Job Sit	e Se-11165	Project: Jacobs	USEPA Welland
Test Method:	Nuclear or Other:_	SN 7086	

	(6) A.	Maximum Dry or	%	Proctor I	Method	Voidless
Type	Soil or Material Classification/Description	Bulk Density (lbs/cu.ft.)	Moisture Content	Standard / D-698 /	Modified D-1557	Mass D-2041
A	Fine Brown St. 1 (8-5)	12 2.5	7.6	Y /	D-1557	D-2041
В						

Test No.	Location	Offset or Elev.	TYPE	Dry or Bulk Density (lbs/cu.ft.)	% Moisture Content	% of Maximum	Minimum Required	P A S S	FAIL
	C	586N		117.00	9,8	96.0	Required 95	1	
2		5 8645		116,2	10,1	96.0	7	/	

	FRANSMITTAL OF SU ATTACH TO EACH SUBMITTAL)	DATE: 7/13/20	UBMITTAL
TO: Sharon Laurent		Submittal No.: 050	
1610 N 2nd St. #201		X New Submittal R	Resubmittal
Milwaukee, WI 53212	_	Project: OMC Waukegan I	Harbor Site, OU 1
		Project No.: EP-S5-06-01 Sp	
		No.: 32 91 13	
		(Cover only one section wi	th each transmittal)
FROM: Nate Hehir		Schedule Date of Submittal:	: 7/13/20
Subcontrac	tor		
Job Site Services			
4395 Wilder Road			
Bay City, MI 48706			
SUBMITTAL TYPE:	Shop Drawing	Sample	X Informational
	Deferred		

The following items are hereby submitted:

Number of Copies	Description of Item Submitted		Drawing or	Contains Variation to Contract		
	(Type, Size, Model Number, Etc.)		Brochure Number	No	Yes	
	Borrow Source Sampling Analytical	1.02 A		X		
	Top Soil Source Location					
	Lorens' Excavating					
	9605 136th Avenue					
	Kenosha, WI 53142					

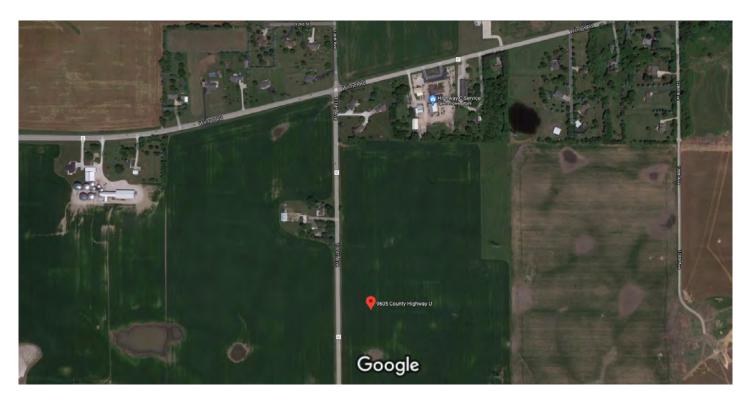
Subcontractor hereby certifies that (i) Subcontractor has complied with the requirements of Subcontract Documents in preparation, review, and submission of designated Submittal and (ii) the Submittal is complete and in accordance with the Subcontract Documents and requirements of laws and regulations and governing agencies.

Subcontractor (Authorized Signature)



9605 136th Ave

Loren'Excavating Top Soil Source Bristol/Kensoha,WI



 $Imagery @2020 \ Maxar \ Technologies, U.S. \ Geological \ Survey, USDA \ Farm \ Service \ Agency, Map \ data @2020 \ Maxar \ Technologies, U.S. \ Geological \ Survey, USDA \ Farm \ Service \ Agency, Map \ data \ @2020 \ Maxar \ Technologies, U.S. \ Geological \ Survey, USDA \ Farm \ Service \ Agency, Map \ data \ @2020 \ Maxar \ Technologies, U.S. \ Geological \ Survey, USDA \ Farm \ Service \ Agency, Map \ data \ @2020 \ Maxar \ Technologies, U.S. \ Geological \ Survey, USDA \ Farm \ Service \ Agency, Map \ data \ @2020 \ Maxar \ Technologies, U.S. \ Geological \ Survey, USDA \ Farm \ Service \ Agency, Map \ data \ @2020 \ Maxar \ Technologies, U.S. \ Geological \ Survey, USDA \ Farm \ Service \ Agency, Map \ data \ @2020 \ Maxar \ Technologies, U.S. \ Geological \ Survey, USDA \ Farm \ Service \ Agency, Map \ data \ @2020 \ Maxar \ Technologies, U.S. \ Geological \ Survey, USDA \ Farm \ Service \ Agency, Map \ data \ @2020 \ Maxar \ Technologies, U.S. \ Geological \ Survey, USDA \ Farm \ Service \ Agency, Map \ data \ @2020 \ Maxar \ Technologies, U.S. \ Geological \ Survey, USDA \ Farm \ Service \ Agency, Map \ data \ @2020 \ Maxar \ Technologies, U.S. \ Geological \ Servey, USDA \ Farm \ Service \ Agency, Map \ data \ Maxar \ May \ Maxar \ May \$ 200 ft ∟



9605 136th Ave

Kenosha, WI 53142











Directions Save

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Customer Job Site Services Inc Project
Sample Date Waukegan, IL 6/30/2020

Lab Name
Job Number Eurofins TestAmerica, Chicago 500-184289-1

Analytical Res	ults for Soil Samples	* Exposu	re Routes fo Resider		SROs	Sample ID pH	
		Ingestion	Inhalation	Class I	Class II	TS-1	TS-2
Method	Analyte	mg/Kg	mg/Kg	mg/Kg	mg/Kg	6.88	7.03
8260B	1,1,1-Trichloroethane	NRO	1200	2	9.6	<0.00089	<0.00094
8260B	1,1,2-Trichloroethane	310	1800	0.02	0.3	<0.0011	<0.0012
8260B	1,1-Dichloroethane	7800	1300	23	110	<0.00091	<0.00096
8260B	1,1-Dichloroethene	3900	290	0.06	0.3	<0.00091	< 0.00097
8260B	1,2-Dibromo-3-Chloropropane	0.46	11	0.002	0.02	<0.0027	<0.0028
8260B	1,2-Dibromoethane	0.32	0.06	0.0004	0.004	<0.0010	<0.0011
8260B	1,2-Dichloroethane	7	0.4	0.02	0.1	<0.0021	<0.0022
8260B	1,2-Dichloropropane	9	15	0.03	0.15	<0.00068	< 0.00073
8260B	1,3-Dichloropropene, Total	6.4	1.1	0.004	0.02	<0.00093	<0.00099
8260B	Acetone	70000	100000	25	25	<0.012	<0.012
8260B	Benzene	12	0.8	0.03	0.17	<0.00067	<0.00072
8260B	Bromodichloromethane	10	3000	0.6	0.6	<0.00054	<0.00057
8260B	Bromoform	81	53	0.8	0.8	<0.00077	<0.00082
8260B	Bromomethane	110	10	0.2	1.2	<0.0025	<0.0027
8260B	Carbon disulfide	7800	720	32	160	<0.0014	<0.0015
8260B	Carbon tetrachloride	5	0.3	0.07	0.33	<0.00077	<0.00082
8260B	Chlorobenzene	1600	130	1	6.5	<0.00098	<0.0010
8260B	Chloroform	100	0.3	0.6	2.9	<0.00092	<0.00098
8260B	cis-1,2-Dichloroethene	780	1200	0.4	1.1	<0.00074	<0.00079
8260B	Dibromochloromethane	1600	1300	0.4	0.4	<0.00087	<0.00092
8260B	Ethylbenzene	7800	400	13	19	< 0.0013	<0.0013
8260B	m&p-Xylene	NRO	NRO	NRO	NRO	<0.00084	<0.00089
8260B	Methylene Chloride	85	13	0.02	0.2	<0.0026	<0.0028
8260B	n-Butyl alcohol	7800	10000	17	17	<0.083	<0.089
8260B	o-Xylene	16000	410	190	190	<0.00085	<0.00090
8260B	Styrene	16000	1500	4	18	<0.00080	<0.00085
8260B	Tetrachloroethene	12	11	0.06	0.3	<0.00090	<0.00096
8260B	Toluene	16000	650	12	29	< 0.00067	<0.00071
8260B	trans-1,2-Dichloroethene	1600	3100	0.7	3.4	<0.0012	<0.0012
8260B	Trichloroethene	58	5	0.06	0.3	<0.00089	<0.00095
8260B	Vinyl acetate	78000	1000	170	170	<0.0023	<0.0024
8260B	Vinyl chloride	0.46	0.28	0.01	0.07	<0.0012	<0.0012
8260B	Xylenes, Total	16000	320	150	150	<0.00085	<0.00090

Customer Job Site Services Inc Waukegan, IL

Project
Sample Date 6/30/2020

Lab Name Job Number Eurofins TestAmerica, Chicago 500-184289-1

Job Number	500-184289-1						_
Analytical Resu	ults for Soil Samples	* Expos	sure Routes	ic SROs	Sample ID		
			Resid		рН		
		Ingestion	Inhalation	Class I	Class II	TS-1	TS-2
Method	Analyte	mg/Kg	mg/Kg	mg/Kg	mg/Kg	6.88	7.03
3270D	1,2,4-Trichlorobenzene	780	3200	5	53	<0.042	<0.042
8270D	1,2-Dichlorobenzene	7000	560	17	43	<0.046	<0.046
8270D	1,4-Dichlorobenzene	NRO	11000	2	11	<0.050	<0.050
8270D	2,4,5-Trichlorophenol	7800	NRO	230	1200		<0.088
8270D	2,4,5-Trichlorophenol	7800	NRO	270	1400	<0.088	
8270D	2,4,6-Trichlorophenol	58	200	0.13	0.13		<0.13
8270D	2,4,6-Trichlorophenol	58	200	0.15	0.77	<0.13	
8270D	2,4-Dichlorophenol	230	NRO	1	1	<0.092	<0.092
8270D	2,4-Dimethylphenol	1600	NRO	9	9	<0.15	<0.15
8270D	2,4-Dinitrophenol	160	NRO	0.2	0.2	<0.68	<0.68
8270D	2,4-Dinitrotoluene	0.9	NRO	0.0008	0.0008	<0.061	<0.062
8270D	2,6-Dinitrotoluene	0.9	NRO	0.0007	0.0007	<0.076	<0.076
8270D	2-Chlorophenol	390	53000	3.9	19		<0.066
8270D	2-Chlorophenol	390	53000	3.9	20	<0.066	
8270D	2-Methylphenol	3900	NRO	15	15	<0.062	<0.062
8270D	3,3'-Dichlorobenzidine	1	NRO	0.007	0.033	<0.054	<0.054
8270D	4-Chloroaniline	310	NRO	0.7	0.7	<0.18	<0.18
8270D	Acenaphthene	4700	NRO	570	2900	<0.0069	< 0.0070
8270D	Anthracene	23000	NRO	12000	59000	<0.0064	<0.006
8270D	Benzo[a]anthracene	0.9	NRO	2	8	0.0066	0.0060
8270D	Benzo[a]pyrene	0.09	NRO	8	82	0.024	0.024
8270D	Benzo[b]fluoranthene	0.9	NRO	5	25	0.030	0.030
8270D	Benzo[k]fluoranthene	9	NRO	49	250	<0.011	<0.011
8270D	Benzoic acid	310000	NRO	400	400	<0.38	< 0.39
8270D	Bis(2-chloroethyl)ether	0.6	0.2	0.0004	0.0004	<0.058	<0.058
8270D	Bis(2-ethylhexyl) phthalate	46	31000	3600	31000	<0.071	<0.071
8270D	Butyl benzyl phthalate	16000	930	930	930	< 0.073	<0.074
8270D	Carbazole	32	NRO	0.6	2.8	<0.096	<0.097
8270D	Carbofuran	390	NRO	0.22	1.1	<0.089	<0.089
8270D	Chrysene	88	NRO	160	800	<0.011	0.011
8270D	Dibenz(a,h)anthracene	0.09	NRO	2	7.6	0.026	0.027
8270D	Diethyl phthalate	63000	2000	470	470	< 0.065	<0.066
8270D	Di-n-butyl phthalate	7800	2300	2300	2300	< 0.059	<0.059
8270D	Di-n-octyl phthalate	1600	10000	10000	10000	< 0.063	< 0.063
8270D	Fluoranthene	3100	NRO	4300	21000	0.011	0.012
8270D	Fluorene	3100	NRO	560	2800	<0.0054	<0.0054
8270D	Hexachlorobenzene	0.4	1	2	11	<0.0089	<0.0090
8270D	Hexachlorocyclopentadiene	550	10	400	2200	<0.22	<0.22
8270D	Hexachloroethane	78	NRO	0.5	2.6	<0.059	< 0.059
8270D	Indeno[1,2,3-cd]pyrene	0.9	NRO	14	69	0.025	0.024
8270D	Isophorone	15600	4600	8	8	<0.043	<0.024
8270D	Naphthalene	1600	170	12	18	<0.0059	<0.0060
8270D 8270D	Nitrobenzene	39	92	0.1	0.1	<0.0039	<0.000
8270D 8270D	N-Nitrosodi-n-propylamine	0.09	NRO	0.00005	0.00005	<0.0030	<0.009
8270D 8270D	N-Nitrosodiphenylamine	130	NRO	1	5.6	<0.047	<0.047
8270D 8270D	Phenol	23000	NRO	100	100	<0.046	<0.046
8270D 8270D		2300	NRO	4200	21000	0.015	0.017
02100	Pyrene	2300	ININO	4200	21000	0.015	0.017

Customer Job Site Services Inc Project
Sample Date
Lab Name
Job Number Waukegan, IL 6/30/2020

Eurofins TestAmerica, Chicago 500-184289-1

Analytical Resu	ults for Soil Samples	* Exposu	re Routes fo Residen	-	SROs	Sample ID pH	
		Ingestion	Inhalation	Class I	Class II	TS-1	TS-2
Method	Analyte	mg/Kg	mg/Kg	mg/Kg	mg/Kg	6.88	7.03
8081B	4,4'-DDD	3	NRO	16	80	<0.00040	<0.00040
8081B	4,4'-DDE	2	NRO	54	270	0.00040	<0.00034
8081B	4,4'-DDT	2	NRO	32	160	<0.0011	0.0012
8081B	Alachlor	8	NRO	0.04	0.2	<0.0071	<0.0072
8081B	Aldrin	0.04	3	0.5	2.5	<0.00083	<0.00084
8081B	alpha-BHC	0.1	0.8	0.0005	0.003	<0.00051	<0.00051
8081B	Atrazine	2700	NRO	0.066	0.33	<0.042	<0.042
8081B	Chlordane (technical)	NRO	NRO	NRO	NRO	<0.0039	<0.0039
8081B	Dieldrin	0.04	1	0.004	0.02	0.0010	0.0015
8081B	Endosulfan I	NRO	NRO	NRO	NRO	<0.00087	<0.00088
8081B	Endosulfan II	NRO	NRO	NRO	NRO	<0.00032	<0.00033
8081B	Endrin	23	NRO	1	5	<0.00028	<0.00028
8081B	gamma-BHC (Lindane)	0.5	NRO	0.009	0.047	<0.00043	<0.00044
8081B	Heptachlor	0.1	0.1	23	110	<0.00084	<0.00085
8081B	Heptachlor epoxide	0.07	5	0.7	3.3	<0.00071	<0.00072
8081B	Methoxychlor	390	NRO	160	780	<0.00039	<0.00039
8081B	Simazine	390	NRO	0.04	0.37	<0.016	<0.016
8081B	Toxaphene	0.6	89	31	150	<0.0084	<0.0085

Customer Job Site Services Inc Project
Sample Date Waukegan, IL 6/30/2020

Lab Name Job Number Eurofins TestAmerica, Chicago 500-184289-1

Job Mullibel	300-104209-1						
Analytical Results for Soil Samples		* Exposur	e Routes fo	Samle ID			
			Residential				
		Ingestion	Inhalation	Class I	Class II	TS-1	TS-2
Method	Analyte	mg/Kg	mg/Kg	mg/Kg	mg/Kg	6.88	7.03
8082A	PCB-1016	NRO	NRO	NRO	NRO	<0.0071	<0.0071
8082A	PCB-1221	NRO	NRO	NRO	NRO	<0.0088	<0.0089
8082A	PCB-1232	NRO	NRO	NRO	NRO	<0.0087	<0.0088
8082A	PCB-1242	NRO	NRO	NRO	NRO	<0.0066	<0.0066
8082A	PCB-1248	NRO	NRO	NRO	NRO	<0.0079	<0.0079
8082A	PCB-1254	NRO	NRO	NRO	NRO	<0.0043	<0.0043
8082A	PCB-1260	NRO	NRO	NRO	NRO	<0.0098	<0.0099
8082A	Polychlorinated biphenyls, Total	1	NRO	NRO	NRO	<0.0038	<0.0039

Customer Job Site Services Inc Project
Sample Date Waukegan, IL 6/30/2020

Lab Name
Job Number Eurofins TestAmerica, Chicago 500-184289-1

Analytical Res	ults for Soil Samples	* Exposu	Sample ID pH				
		Ingestion	Inhalation	Class I	Class II	TS-1	TS-2
Method	Analyte	mg/Kg	mg/Kg	mg/Kg	mg/Kg	6.88	7.03
6010B	Antimony	31	NRO	5	20	0.66	0.67
6010B	Arsenic	NRO	750	29	120	5.8	6.2
6010B	Barium	5500	690000	1600	1600	67	
6010B	Barium	5500	690000	1700	1700		82
6010B	Beryllium	160	1300	140	17000		0.72
6010B	Beryllium	160	1300	63	7900	0.66	
6010B	Boron	16000	NRO	NRO	NRO	4.8	6.5
6010B	Cadmium	78	1800	11	110		0.15
6010B	Cadmium	78	1800	7.5	75	0.11	
6010B	Calcium	NRO	NRO	NRO	NRO	2600	2900
6010B	Chromium	230	270	NRO	NRO	18	19
6010B	Cobalt	4700	NRO	NRO	NRO	10	11
6010B	Copper	2900	NRO	130000	130000	14	
6010B	Copper	2900	NRO	200000	200000		16
6010B	Iron	55000	NRO	NRO	NRO	16000	18000
6010B	Lead	400	NRO	107	1420	17	20
6010B	Magnesium	325000	NRO	NRO	NRO	2900	3100
6010B	Manganese	1600	69000	NRO	NRO	500	590
6010B	Nickel	1600	13000	130	2600	21	
6010B	Nickel	1600	13000	180	3500		22
6010B	Potassium	NRO	NRO	NRO	NRO	1800	2000
6010B	Selenium	390	NRO	4.5	4.5		0.50
6010B	Selenium	390	NRO	5.2	5.2	0.65	
6010B	Silver	390	NRO	13	NRO		< 0.07
6010B	Silver	390	NRO	8.5	NRO	<0.072	
6010B	Sodium	NRO	NRO	NRO	NRO	41	50
6010B	Thallium	6.3	NRO	2.8	28	<0.28	
6010B	Thallium	6.3	NRO	3	30		<0.28
6010B	Vanadium	550	NRO	980	NRO	27	30
6010B	Zinc	23000	NRO	6200	12000	71	
6010B	Zinc	23000	NRO	7500	15000		75
7471B	Mercury	23	10	2.1	10	0.037	
7471B	Mercury	23	10	3.3	16		0.036

Customer Job Site Services Inc Project
Sample Date
Lab Name
Job Number Waukegan, IL 6/30/2020

Eurofins TestAmerica, Chicago 500-184289-1

Analytical Res	ults for Soil Samples		*	Exposur	e Routes	for Specif	ic SROs			Sample ID	
	-	In	dustrial/Co	mmercial		C	onstruction	Worker		pН	
		Ingestion	Inhalation	Class I	Class II	Ingestion	Inhalation	Class I	Class II	TS-1	TS-2
Method	Analyte	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	6.88	7.03
8260B	1,1,1-Trichloroethane	NRO	1200	2	9.6	NRO	1200	2	9.6	<0.00089	<0.00094
8260B	1,1,2-Trichloroethane	8200	1800	0.02	0.3	8200	1800	0.02	0.3	<0.0011	< 0.0012
8260B	1,1-Dichloroethane	200000	1700	23	110	200000	130	23	110	<0.00091	<0.00096
8260B	1,1-Dichloroethene	100000	470	0.06	0.3	10000	3	0.06	0.3	<0.00091	< 0.0009
8260B	1,2-Dibromo-3-Chloropropane	4	17	0.002	0.002	89	0.11	0.002	0.02	<0.0027	<0.0028
8260B	1,2-Dibromoethane	2.9	0.12	0.0004	0.004	62	0.16	0.0004	0.004	<0.0010	<0.0011
8260B	1,2-Dichloroethane	63	0.7	0.02	0.1	1400	0.99	0.02	0.1	<0.0021	<0.0022
8260B	1,2-Dichloropropane	84	23	0.03	0.15	1800	0.5	0.03	0.15	<0.00068	< 0.00073
8260B	1,3-Dichloropropene, Total	57	2.1	0.004	0.02	1200	0.39	0.004	0.02	<0.00093	<0.00099
8260B	Acetone	NRO	100000	25	25	NRO	100000	25	25	<0.012	<0.012
8260B	Benzene	100	1.6	0.03	0.17	2300	2.2	0.03	0.17	< 0.00067	< 0.00072
8260B	Bromodichloromethane	92	3000	0.6	0.6	2000	3000	0.6	0.6	< 0.00054	< 0.00057
8260B	Bromoform	720	100	0.8	0.8	16000	140	0.8	0.8	<0.00077	<0.00082
8260B	Bromomethane	2900	15	0.2	1.2	1000	3.9	0.2	1.2	<0.0025	<0.0027
8260B	Carbon disulfide	200000	720	32	160	20000	9	32	160	<0.0014	<0.0015
8260B	Carbon tetrachloride	44	0.64	0.07	0.33	410	0.9	0.07	0.33	<0.00077	<0.00082
8260B	Chlorobenzene	41000	210	1	6.5	4100	1.3	1	6.5	<0.00098	<0.0010
8260B	Chloroform	940	0.54	0.6	2.9	2000	0.76	0.6	2.9	<0.00092	<0.00098
8260B	cis-1,2-Dichloroethene	20000	1200	0.4	1.1	20000	1200	0.4	1.1	<0.00074	< 0.00079
8260B	Dibromochloromethane	41000	1300	0.4	0.4	41000	1300	0.4	0.4	<0.00087	< 0.00092
8260B	Ethylbenzene	200000	400	13	19	20000	58	13	19	<0.0013	<0.0013
8260B	m&p-Xylene	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	<0.00084	<0.00089
8260B	Methylene Chloride	760	24	0.02	0.2	12000	34	0.02	0.2	<0.0026	<0.0028
8260B	n-Butyl alcohol	200000	10000	17	17	200000	10000	17	17	<0.083	<0.089
8260B	o-Xylene	410000	410	190	190	41000	6.5	190	190	<0.00085	<0.00090
8260B	Styrene	410000	1500	4	18	41000	430	4	18	<0.00080	<0.00085
8260B	Tetrachloroethene	110	20	0.06	0.3	2400	28	0.06	0.3	<0.00090	<0.00096
8260B	Toluene	410000	650	12	29	410000	42	12	29	<0.00067	<0.0007
8260B	trans-1,2-Dichloroethene	41000	3100	0.7	3.4	41000	3100	0.7	3.4	<0.0012	<0.0012
8260B	Trichloroethene	520	8.9	0.06	0.3	1200	12	0.06	0.3	<0.00089	<0.00095
8260B	Vinyl acetate	1000000	1600	170	170	200000	10	170	170	<0.0023	<0.0024
8260B	Vinyl chloride	7.9	1.1	0.01	0.07	170	1.1	0.01	0.07	<0.0012	<0.0012
8260B	Xylenes, Total	410000	320	150	150	41000	5.6	150	150	<0.00085	<0.00090

Customer Job Site Services Inc Project
Sample Date Waukegan, IL 6/30/2020

Lab Name
Job Number Eurofins TestAmerica, Chicago 500-184289-1

Analytical Dec	500-184289-1			* F _{229.0}	Davita	- for Cresif	in CDOn			Camarala ID	1
Analytical Resi	ults for Soil Samples	* Exposure Routes for Specific SROs Industrial/Commercial Construction Worker								Sample ID pH	
						1 0			l 01 11		TO 6
Method	Analyta	Ingestion	Inhalation	Class I	Class II	Ingestion	Inhalation	Class I	Class II	TS-1 6.88	TS-2
	Analyte	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg		
3270D	1,2,4-Trichlorobenzene	20000	3200	5	53	2000	920	5	53	<0.042	<0.04
8270D	1,2-Dichlorobenzene	180000	560	17	43	18000	310	17	43	<0.046	<0.04
8270D	1,4-Dichlorobenzene	NRO	17000	2	11	NRO	340	2	11	<0.050	<0.0
8270D	2,4,5-Trichlorophenol	200000	NRO	230	1200	200000	NRO	230	1200		<0.08
8270D	2,4,5-Trichlorophenol	200000	NRO	270	1400	200000	NRO	270	1400	<0.088	
3270D	2,4,6-Trichlorophenol	520	390	0.13	0.13	11000	540	0.13	0.13		<0.1
3270D	2,4,6-Trichlorophenol	520	390	0.15	0.77	11000	540	0.15	0.77	<0.13	
3270D	2,4-Dichlorophenol	6100	NRO	1	1	610	NRO	1	1	<0.092	< 0.09
3270D	2,4-Dimethylphenol	41000	NRO	9	9	41000	NRO	9	9	<0.15	<0.1
3270D	2,4-Dinitrophenol	4100	NRO	0.2	0.2	410	NRO	0.2	0.2	<0.68	<0.6
3270D	2,4-Dinitrotoluene	8.4	NRO	0.0008	0.0008	180	NRO	0.0008	0.0008	<0.061	<0.06
3270D	2,6-Dinitrotoluene	8.4	NRO	0.0007	0.0007	180	NRO	0.0007	0.0007	<0.076	<0.0
3270D	2-Chlorophenol	10000	53000	3.9	19	10000	53000	3.9	19		<0.0
3270D	2-Chlorophenol	10000	53000	3.9	20	10000	53000	3.9	20	<0.066	
3270D	2-Methylphenol	100000	NRO	15	15	100000	NRO	15	15	<0.062	<0.0
3270D	3,3'-Dichlorobenzidine	13	NRO	0.007	0.033	280	NRO	0.007	0.033	<0.054	< 0.0
3270D	4-Chloroaniline	8200	NRO	0.7	0.7	820	NRO	0.7	0.7	<0.18	<0.1
3270D	Acenaphthene	120000	NRO	570	2900	120000	NRO	570	2900	<0.0069	<0.00
3270D	Anthracene	610000	NRO	12000	59000	610000	NRO	12000	59000	<0.0064	<0.00
3270D	Benzo[a]anthracene	8	NRO	2	8	170	NRO	2	8	0.0066	0.00
3270D	Benzo[a]pyrene	0.8	NRO	8	82	17	NRO	8	82	0.024	0.02
3270D	Benzo[b]fluoranthene	8	NRO	5	25	170	NRO	5	25	0.030	0.03
3270D	Benzo[k]fluoranthene	78	NRO	49	250	1700	NRO	49	250	<0.011	<0.0
3270D	Benzoic acid	1000000	NRO	400	400	820000	NRO	400	400	<0.38	<0.3
3270D	Bis(2-chloroethyl)ether	5	0.47	0.0004	0.0004	75	0.66	0.0004	0.0004	<0.058	<0.0
3270D	Bis(2-ethylhexyl) phthalate	410	31000	3600	31000	4100	31000	3600	31000	<0.071	<0.0
3270D	Butyl benzyl phthalate	410000	930	930	930	410000	930	930	930	<0.073	<0.0
3270D	Carbazole	290	NRO	0.6	2.8	6200	NRO	0.6	2.8	<0.096	<0.0
3270D	Carbofuran	10000	NRO	0.22	1.1	1000	NRO	0.22	1.1	<0.089	<0.08
3270D	Chrysene	780	NRO	160	800	17000	NRO	160	800	<0.011	0.01
3270D 3270D	Dibenz(a,h)anthracene	0.8	NRO	2	7.6	17	NRO	2	7.6	0.026	0.02
3270D 3270D	Diethyl phthalate	1000000	2000	470	470	1000000	2000	470	470	<0.065	<0.02
3270D 3270D	Di-n-butyl phthalate	200000	2300	2300	2300	200000	2300	2300	2300	<0.059	<0.0
3270D 3270D	Di-n-octyl phthalate	41000	10000	10000	10000	4100	10000	10000	10000	<0.063	<0.0
3270D 3270D	Fluoranthene	82000	NRO	4300	21000	82000	NRO	4300	21000	0.003	0.01
3270D 3270D	Fluorene	82000	NRO	560	2800	82000	NRO	560	2800	<0.0054	<0.00
3270D 3270D	Hexachlorobenzene	4	1.8	2	11	78	2.6	2	11	<0.0054	<0.00
3270D 3270D		14000	1.6	400	2200	14000	1.1	400	2200	<0.0069	<0.00
3270D 3270D	Hexachlorocyclopentadiene Hexachloroethane	2000	NRO	0.5	2.6	2000	NRO	0.5	2.6	<0.22	<0.2
3270D	Indeno[1,2,3-cd]pyrene	8	NRO	14	69	170	NRO	14	69	0.025	0.02
3270D	Isophorone	410000	4600	8	8	410000	4600	8	8	<0.043	<0.0
3270D	Naphthalene	41000	270	12	18	4100	1.8	12	18	<0.0059	<0.00
3270D	Nitrobenzene	1000	140	0.1	0.1	1000	9.4	0.1	0.1	<0.0096	<0.00
3270D	N-Nitrosodi-n-propylamine	0.8	NRO	0.00005	0.00005	18	NRO	0.00005	0.00005	<0.047	<0.0
3270D	N-Nitrosodiphenylamine	1200	NRO	1	5.6	25000	NRO	1	5.6	<0.046	<0.0
3270D	Phenol	610000	NRO	100	100	61000	NRO	100	100	<0.086	<0.0
3270D	Pyrene	61000	NRO	4200	21000	61000	NRO	4200	21000	0.015	0.01

Customer Job Site Services Inc Project
Sample Date
Lab Name
Job Number Waukegan, IL 6/30/2020

Eurofins TestAmerica, Chicago 500-184289-1

Analytical Resi	ults for Soil Samples		* Exposure Routes for Specific SROs								
		In	dustrial/Co	mmercial		C	onstruction	Worker		pН	
		Ingestion	Inhalation	Class I	Class II	Ingestion	Inhalation	Class I	Class II	TS-1	TS-2
Method	Analyte	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	6.88	7.03
8081B	4,4'-DDD	24	NRO	16	80	520	NRO	16	80	<0.00040	<0.00040
8081B	4,4'-DDE	17	NRO	54	270	370	NRO	54	270	0.00040	<0.00034
8081B	4,4'-DDT	17	1500	32	160	100	2100	32	160	<0.0011	0.0012
8081B	Alachlor	72	NRO	0.04	0.2	1600	NRO	0.04	0.2	<0.0071	< 0.0072
8081B	Aldrin	0.3	6.6	0.5	2.5	6.1	9.3	0.5	2.5	<0.00083	<0.00084
8081B	alpha-BHC	0.9	1.5	0.0005	0.003	20	2.1	0.0005	0.003	<0.00051	<0.00051
8081B	Atrazine	72000	NRO	0.066	0.33	7100	NRO	0.066	0.33	<0.042	<0.042
8081B	Chlordane (technical)	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	<0.0039	<0.0039
8081B	Dieldrin	0.4	2.2	0.004	0.02	7.8	3.1	0.004	0.02	0.0010	0.0015
8081B	Endosulfan I	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	<0.00087	<0.00088
8081B	Endosulfan II	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	<0.00032	<0.00033
8081B	Endrin	610	NRO	1	5	61	NRO	1	5	<0.00028	<0.00028
8081B	gamma-BHC (Lindane)	4	NRO	0.009	0.047	96	NRO	0.009	0.047	<0.00043	<0.00044
8081B	Heptachlor	1	11	23	110	28	16	23	110	<0.00084	<0.00085
8081B	Heptachlor epoxide	0.6	9.2	0.7	3.3	2.7	13	0.7	3.3	<0.00071	<0.00072
8081B	Methoxychlor	10000	NRO	160	780	1000	NRO	160	780	<0.00039	<0.00039
8081B	Simazine	10000	NRO	0.04	0.37	1000	NRO	0.04	0.37	<0.016	<0.016
8081B	Toxaphene	5.2	170	31	150	110	240	31	150	<0.0084	<0.0085

Customer Job Site Services Inc Project
Sample Date
Lab Name
Job Number Waukegan, IL 6/30/2020 Eurofins TestAmerica, Chicago 500-184289-1

Analytical Resi	ults for Soil Samples		* Exposure Routes for Specific SROs								
		In	dustrial/Cor	nmercial		C	n Worker		рН		
		Ingestion	Inhalation	Class I	Class II	Ingestion	Inhalation	Class I	Class II	TS-1	TS-2
Method	Analyte	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	6.88	7.03
8082A	PCB-1016	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	<0.0071	<0.0071
8082A	PCB-1221	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	<0.0088	<0.0089
8082A	PCB-1232	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	<0.0087	<0.0088
8082A	PCB-1242	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	<0.0066	<0.0066
8082A	PCB-1248	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	<0.0079	<0.0079
8082A	PCB-1254	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	<0.0043	<0.0043
8082A	PCB-1260	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	<0.0098	<0.0099
8082A	Polychlorinated biphenyls, Total	1	NRO	NRO	NRO	1	NRO	NRO	NRO	<0.0038	<0.0039

Customer Job Site Services Inc Project
Sample Date
Lab Name
Job Number Waukegan, IL

6/30/2020

Eurofins TestAmerica, Chicago 500-184289-1

Analytical Res	ults for Soil Samples		* Exposure Routes for Specific SROs								1
_	-	lı	ndustrial/Co	mmercial		(Constructio	n Worker		рН	
		Ingestion	Inhalation	Class I	Class II	Ingestion	Inhalation	Class I	Class II	TS-1	TS-2
Method	Analyte	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	6.88	7.03
6010B	Antimony	820	NRO	5	20	82	NRO	5	20	0.66	0.67
6010B	Arsenic	NRO	1200	29	120	61	25000	29	120	5.8	6.2
6010B	Barium	140000	910000	1600	1600	14000	870000	1600	1600	67	
6010B	Barium	140000	910000	1700	1700	14000	870000	1700	1700		82
6010B	Beryllium	4100	2100	140	17000	410	44000	140	17000		0.72
6010B	Beryllium	4100	2100	63	7900	410	44000	63	7900	0.66	
6010B	Boron	410000	NRO	NRO	NRO	41000	NRO	NRO	NRO	4.8	6.5
6010B	Cadmium	2000	2800	11	110	200	59000	11	110		0.15
6010B	Cadmium	2000	2800	7.5	75	200	59000	7.5	75	0.11	
6010B	Calcium	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	2600	2900
6010B	Chromium	6100	420	NRO	NRO	4100	690	NRO	NRO	18	19
6010B	Cobalt	120000	NRO	NRO	NRO	12000	NRO	NRO	NRO	10	11
6010B	Copper	82000	NRO	130000	130000	8200	NRO	130000	130000	14	
6010B	Copper	82000	NRO	200000	200000	8200	NRO	200000	200000		16
6010B	Iron	1000000	NRO	NRO	NRO	140000	NRO	NRO	NRO	16000	1800
6010B	Lead	800	NRO	107	1420	700	NRO	107	1420	17	20
6010B	Magnesium	NRO	NRO	NRO	NRO	730000	NRO	NRO	NRO	2900	3100
6010B	Manganese	41000	91000	NRO	NRO	4100	8700	NRO	NRO	500	590
6010B	Nickel	41000	21000	130	2600	4100	440000	130	2600	21	
6010B	Nickel	41000	21000	180	3500	4100	440000	180	3500		22
6010B	Potassium	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	1800	2000
6010B	Selenium	10000	NRO	4.5	4.5	1000	NRO	4.5	4.5		0.50
6010B	Selenium	10000	NRO	5.2	5.2	1000	NRO	5.2	5.2	0.65	
6010B	Silver	10000	NRO	13	NRO	1000	NRO	13	NRO		< 0.07
6010B	Silver	10000	NRO	8.5	NRO	1000	NRO	8.5	NRO	<0.072	
6010B	Sodium	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	41	50
6010B	Thallium	160	NRO	2.8	28	160	NRO	2.8	28	<0.28	
6010B	Thallium	160	NRO	3	30	160	NRO	3	30		<0.2
6010B	Vanadium	14000	NRO	980	NRO	1400	NRO	980	NRO	27	30
6010B	Zinc	610000	NRO	6200	12000	61000	NRO	6200	12000	71	
6010B	Zinc	610000	NRO	7500	15000	61000	NRO	7500	15000		75
7471B	Mercury	610	16	2.1	10	61	0.1	2.1	10	0.037	
7471B	Mercury	610	16	3.3	16	61	0.1	3.3	16		0.036

Customer Job Site Services Inc Project Waukegan, IL

Sample Date 6/30/2020

Lab Name Job Number Eurofins TestAmerica, Chicago 500-184289-1

Job Number	500-184289-1					
Analytical Res	ults for Water Samples	* Expos	ure Routes	for Specific	SROs	Sample ID pH
		Ingestion	Inhalation	Class I	Class II	Trip Blank
Method	Analyte	mg/L	mg/L	mg/L	mg/L	
8260B	1,1,1-Trichloroethane	NRO	NRO	0.2	1	<0.00038
8260B	1,1,2-Trichloroethane	NRO	NRO	0.005	0.05	<0.00035
8260B	1,1-Dichloroethane	NRO	NRO	0.7	3.5	<0.00041
8260B	1,1-Dichloroethene	NRO	NRO	0.007	0.035	<0.00039
8260B	1,2-Dibromo-3-Chloropropane	NRO	NRO	0.0002	0.002	<0.0020
8260B	1,2-Dibromoethane	NRO	NRO	0.00005	0.0005	<0.00039
8260B	1,2-Dichloroethane	NRO	NRO	0.005	0.025	<0.00039
8260B	1,2-Dichloropropane	NRO	NRO	0.005	0.025	< 0.00043
8260B	1,3-Dichloropropene, Total	NRO	NRO	0.001	0.005	<0.00042
8260B	Acetone	NRO	NRO	6.3	6.3	0.0055
8260B	Benzene	NRO	NRO	0.005	0.025	<0.00015
8260B	Bromodichloromethane	NRO	NRO	0.0002	0.0002	< 0.00037
8260B	Bromoform	NRO	NRO	0.001	0.001	<0.00048
8260B	Bromomethane	NRO	NRO	0.0098	0.049	<0.00080
8260B	Carbon disulfide	NRO	NRO	0.7	3.5	<0.00045
8260B	Carbon tetrachloride	NRO	NRO	0.005	0.025	<0.00038
8260B	Chlorobenzene	NRO	NRO	0.1	0.5	<0.00039
8260B	Chloroform	NRO	NRO	0.0002	0.001	< 0.00037
8260B	cis-1,2-Dichloroethene	NRO	NRO	0.07	0.2	<0.00041
8260B	cis-1,3-Dichloropropene	NRO	NRO	NRO	NRO	<0.00042
8260B	Dibromochloromethane	NRO	NRO	0.14	0.14	< 0.00049
8260B	Ethylbenzene	NRO	NRO	0.7	1	<0.00018
8260B	m&p-Xylene	NRO	NRO	NRO	NRO	<0.00018
8260B	Methylene Chloride	NRO	NRO	0.005	0.05	<0.0016
8260B	n-Butyl alcohol	NRO	NRO	0.7	0.7	< 0.053
8260B	o-Xylene	NRO	NRO	NRO	NRO	<0.00022
8260B	Styrene	NRO	NRO	0.1	0.5	<0.00039
8260B	Tetrachloroethene	NRO	NRO	0.005	0.025	< 0.00037
8260B	Toluene	NRO	NRO	1	2.5	<0.00015
8260B	trans-1,2-Dichloroethene	NRO	NRO	0.1	0.5	<0.00035
8260B	trans-1,3-Dichloropropene	NRO	NRO	NRO	NRO	<0.00036
8260B	Trichloroethene	NRO	NRO	0.005	0.025	<0.00016
8260B	Vinyl acetate	NRO	NRO	7	7	<0.00091
8260B	Vinyl chloride	NRO	NRO	0.002	0.01	<0.00020
8260B	Xylenes, Total	NRO	NRO	10	10	<0.00022

Customer Job Site Services Inc Project
Sample Date
Lab Name
Job Number Waukegan, IL 6/30/2020

Eurofins TestAmerica, Chicago 500-184289-1

	ults for Inorganic in oils-Metropolitan	Counties Within Metropolitan	Counties Outside Metropolitan		
J	•	·		Sample ID	1
Method	Analyte	mg/Kg	mg/Kg	TS-1	TS-2
6010B	Antimony	4	3.3	0.66	0.67
6010B	Arsenic	13	11.3	5.8	6.2
6010B	Barium	110	122	67	82
6010B	Beryllium	0.59	0.56	0.66	0.72
6010B	Cadmium	0.6	0.5	0.11	0.15
6010B	Calcium	9300	5525	2600	2900
6010B	Chromium	16.2	13	18	19
6010B	Cobalt	8.9	8.9	10	11
6010B	Copper	19.6	12	14	16
6010B	Iron	15900	15000	16000	18000
6010B	Lead	36	20.9	17	20
6010B	Magnesium	4820	2700	2900	3100
6010B	Manganese	636	630	500	590
6010B	Nickel	18	13	21	22
6010B	Potassium	1268	1100	1800	2000
6010B	Selenium	0.48	0.37	0.65	0.50
6010B	Silver	0.55	0.5	<0.072	<0.072
6010B	Sodium	130	130	41	50
6010B	Thallium	0.32	0.42	<0.28	<0.28
6010B	Vanadium	25.2	25	27	30
6010B	Zinc	95	60.2	71	75
7471B	Mercury	0.06	0.05	0.037	0.036
9014	Cyanide, Total	0.51	0.5	0.29	<0.29
9056A	Sulfate	85.5	110	9.6	8.9

Customer Job Site Services Inc Project
Sample Date
Lab Name Waukegan, IL 6/30/2020

Eurofins TestAmerica, Chicago 500-184289-1

Job Number

Analytical Resi Background So	ults for PAH in pils-Metropolitan	Chicago	Metropolitan	Non Metropolitan	-	
					Sample ID	
Method	Analyte	mg/Kg	mg/Kg	mg/Kg	TS-1	TS-2
8270D	Acenaphthene	0.09	0.13	0.04	<0.0069	<0.0070
8270D	Anthracene	0.25	0.4	0.14	<0.0064	<0.0065
8270D	Benzo[a]anthracene	1.1	1.8	0.72	0.0066	0.0060
8270D	Benzo[a]pyrene	1.3	2.1	0.98	0.024	0.024
8270D	Benzo[b]fluoranthene	1.5	2.1	0.7	0.030	0.030
8270D	Benzo[k]fluoranthene	0.99	1.7	0.63	<0.011	<0.011
8270D	Chrysene	1.2	2.7	1.1	<0.011	0.011
8270D	Dibenz(a,h)anthracene	0.2	0.42	0.15	0.026	0.027
8270D	Fluoranthene	2.7	4.1	1.8	0.011	0.012
8270D	Fluorene	0.1	0.18	0.04	<0.0054	<0.0054
8270D	Indeno[1,2,3-cd]pyrene	0.86	1.6	0.51	0.025	0.024
8270D	Naphthalene	0.04	0.2	0.17	<0.0059	<0.0060
8270D	Pyrene	1.9	3	1.2	0.015	0.017

Customer Job Site Services Inc Project
Sample Date
Lab Name
Job Number Waukegan, IL 6/30/2020

Eurofins TestAmerica, Chicago 500-184289-1

Analytical Resi	ults for Soil Samples	* Exposur	* Exposure Routes for Specific SROs Residential							
		Ingestion	Inhalation	Class I	Class II	TS-1	TS-2			
Method	Analyte	mg/Kg	mg/Kg	mg/Kg	mg/Kg	6.88	7.03			
7196A	Chromium, hexavalent	230	270	36	NRO		0.55			
7196A	Chromium, hexavalent	230	270	38	NRO	<0.46				
7196A	Chromium, trivalent	120000	NRO	NRO	NRO	18	18			
9014	Cyanide, Amenable	1600	NRO	40	120	<0.28	<0.29			
9014	Cyanide, Total	1600	NRO	40	120	0.29	<0.29			
9056A	Chloride	NRO	NRO	NRO	NRO	3.0	2.7			
9056A	Fluoride	4700	NRO	NRO	NRO	11	10			
9056A	Nitrate as N	130000	NRO	NRO	NRO	25	23			
9056A	Sulfate	NRO	NRO	NRO	NRO	9.6	8.9			

CustomerJob Site Services IncProjectWaukegan, ILSample Date6/30/2020Lab NameEurofins TestAmerica, ChicagoJob Number500-184289-1

Analytical Resi	ults for Soil Samples		*	Exposur	e Routes	for Specifi	ic SROs		·	Sample ID	
-	-	Inc	dustrial/Con	nmercial		С	onstruction	Worker		рН	
		Ingestion	Inhalation	Class I	Class II	Ingestion	Inhalation	Class I	Class II	TS-1	TS-2
Method	Analyte	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	6.88	7.03
7196A	Chromium, hexavalent	6100	420	36	NRO	4100	690	36	NRO		0.55
7196A	Chromium, hexavalent	6100	420	38	NRO	4100	690	38	NRO	<0.46	
7196A	Chromium, trivalent	1000000	NRO	NRO	NRO	310000	NRO	NRO	NRO	18	18
9014	Cyanide, Amenable	41000	NRO	40	120	4100	NRO	40	120	<0.28	<0.29
9014	Cyanide, Total	41000	NRO	40	120	4100	NRO	40	120	0.29	<0.29
9056A	Chloride	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	3.0	2.7
9056A	Fluoride	120000	NRO	NRO	NRO	12000	NRO	NRO	NRO	11	10
9056A	Nitrate as N	1000000	NRO	NRO	NRO	330000	NRO	NRO	NRO	25	23
9056A	Sulfate	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	9.6	8.9

Customer Job Site Services Inc Project
Sample Date
Lab Name
Job Number Waukegan, IL 6/30/2020

Eurofins TestAmerica, Chicago 500-184289-1

Analytical Resi	ults for Soil Samples	* Exposur	e Routes fo Residen	Sample ID pH			
		Ingestion	Inhalation	Class I	Class II	TS-1	TS-2
Method	Analyte	mg/Kg	mg/Kg	mg/Kg	mg/Kg	6.88	7.03
8151	2,4-D	780	NRO	1.5	7.7	<0.11	<0.11
8151	Dalapon	2300	NRO	0.85	8.5	<0.090	<0.093
8151	Dinoseb	78	NRO	0.31	3.1		<0.20
8151	Dinoseb	78	NRO	0.34	3.4	<0.19	
8151	Pentachlorophenol	3	NRO	0.02	0.12		<0.073
8151	Pentachlorophenol	3	NRO	0.03	0.15	<0.071	
8151	Picloram	5500	NRO	2	20	<0.080	<0.083
8151	Silvex (2,4,5-TP)	630	NRO	11	55	<0.099	<0.10

Job Site Services Inc Customer Project
Sample Date
Lab Name
Job Number Waukegan, IL 6/30/2020 Eurofins TestAmerica, Chicago 500-184289-1

Analytical Resi	ults for Soil Samples		* Exposure Routes for Specific SROs								
	-	Inc	Industrial/Commercial				onstruction	Worker		рН	
		Ingestion	Inhalation	Class I	Class II	Ingestion	Inhalation	Class I	Class II	TS-1	TS-2
Method	Analyte	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	6.88	7.03
8151	2,4-D	20000	NRO	1.5	7.7	2000	NRO	1.5	7.7	<0.11	<0.11
8151	Dalapon	61000	NRO	0.85	8.5	6100	NRO	0.85	8.5	<0.090	<0.093
8151	Dinoseb	2000	NRO	0.31	3.1	200	NRO	0.31	3.1		<0.20
8151	Dinoseb	2000	NRO	0.34	3.4	200	NRO	0.34	3.4	<0.19	
8151	Pentachlorophenol	24	NRO	0.02	0.12	520	NRO	0.02	0.12		<0.073
8151	Pentachlorophenol	24	NRO	0.03	0.15	520	NRO	0.03	0.15	<0.071	
8151	Picloram	140000	NRO	2	20	14000	NRO	2	20	<0.080	<0.083
8151	Silvex (2,4,5-TP)	16000	NRO	11	55	1600	NRO	11	55	<0.099	<0.10



Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago 2417 Bond Street University Park, IL 60484 Tel: (708)534-5200

Laboratory Job ID: 500-184289-1 Client Project/Site: Waukegan, IL

For:

Job Site Services Inc 4395 Wilder Road Bay City, Michigan 48706

Attn: Chris Martin

Diana Mickler

Authorized for release by: 7/10/2020 1:21:51 PM

Diana Mockler, Project Manager I (219)252-7570

Diana.Mockler@Eurofinset.com

.....LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: Job Site Services Inc Project/Site: Waukegan, IL

Laboratory Job ID: 500-184289-1

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Case Narrative

Client: Job Site Services Inc Project/Site: Waukegan, IL Job ID: 500-184289-1

Job ID: 500-184289-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-184289-1

Comments

No additional comments.

Receipt

The samples were received on 6/30/2020 3:20 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 17.4° C.

GC/MS VOA

Method 8260B: Acetone was detected in the following samples: Trip Blank (500-184289-3). The method blank associated with these samples was non-detect for Acetone. Acetone is a known lab contaminant; therefore all low level detects for this compound could be suspected as lab contamination.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA

Method 8151A: The continuing calibration verification (CCV) associated with batch 500-550881 recovered above the upper control limit for Dalapon. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: TS-1 (500-184289-1), TS-2 (500-184289-2) and (CCV 500-550881/2).

Method 8081B: The %RPD between the primary and confirmation column exceeded 40% for 4,4'-DDE and Dieldrin for the following sample: TS-1 (500-184289-1). The lower has been reported and qualified in accordance with the laboratory's SOP.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

Method 9014: Total cyanide analysis was performed for sample TS-2 (500-184289-2), and the result obtained was a non-detect. As such, the amenable cyanide analysis was not performed, and the result for this analyte was reported as non-detect.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Geotechnical

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Job Site Services Inc Project/Site: Waukegan, IL Job ID: 500-184289-1

Client Sample ID: TS-1

Lab Sample ID: 500-184289-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.0066	J	0.038	0.0052	mg/Kg	1	₩	8270D	Total/NA
Benzo[a]pyrene	0.024	J	0.038	0.0075	mg/Kg	1	₩	8270D	Total/NA
Benzo[b]fluoranthene	0.030	J	0.038	0.0083	mg/Kg	1	₩	8270D	Total/NA
Dibenz(a,h)anthracene	0.026	J	0.038	0.0075	mg/Kg	1	₩	8270D	Total/NA
Fluoranthene	0.011	J	0.038	0.0072	mg/Kg	1	₩	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.025	J	0.038	0.010	mg/Kg	1	₩	8270D	Total/NA
Pyrene	0.015	J	0.038	0.0077	mg/Kg	1	₽	8270D	Total/NA
4,4'-DDE	0.00040	J	0.0020	0.00033	mg/Kg	1	₩	8081B	Total/NA
Dieldrin	0.0010	J	0.0020	0.00027	mg/Kg	1	₩	8081B	Total/NA
Antimony	0.66	J	1.1	0.22	mg/Kg	1	₩	6010B	Total/NA
Arsenic	5.8		0.56	0.19	mg/Kg	1	₩	6010B	Total/NA
Barium	67		0.56	0.063	mg/Kg	1	₩	6010B	Total/NA
Beryllium	0.66		0.22	0.052	mg/Kg	1	₩.	6010B	Total/NA
Boron	4.8		2.8	0.26	mg/Kg	1	☼	6010B	Total/NA
Cadmium	0.11		0.11	0.020	mg/Kg	1	₩	6010B	Total/NA
Calcium	2600		11	1.9	mg/Kg	1		6010B	Total/NA
Chromium	18		0.56	0.28	mg/Kg	1	₩	6010B	Total/NA
Cobalt	10		0.28	0.073	mg/Kg	1		6010B	Total/NA
Copper	14		0.56	0.16	mg/Kg	1		6010B	Total/NA
Iron	16000		11	5.8	mg/Kg	1	₩	6010B	Total/NA
Lead	17		0.28	0.13	mg/Kg	1	₩	6010B	Total/NA
Magnesium	2900		5.6	2.8	mg/Kg	1		6010B	Total/NA
Manganese	500		0.56	0.081	mg/Kg	1		6010B	Total/NA
Nickel	21		0.56	0.16	mg/Kg	1		6010B	Total/NA
Potassium	1800		28	9.8	mg/Kg	1		6010B	Total/NA
Selenium	0.65		0.56	0.33	mg/Kg	1		6010B	Total/NA
Sodium	41	J	56		mg/Kg	1		6010B	Total/NA
Vanadium	27		0.28		mg/Kg	1		6010B	Total/NA
Zinc	71		1.1	0.49	mg/Kg	1	₩	6010B	Total/NA
Mercury	0.037		0.019	0.0065	mg/Kg	1	₩	7471B	Total/NA
Chromium, trivalent	18		0.12	0.12		1		7196A	Total/NA
Cyanide, Total		J F2	0.55	0.28	mg/Kg	1	₩	9014	Total/NA
Chloride	3.0		2.3	1.9	mg/Kg	1	₩	9056A	Total/NA
Fluoride	11	F1	2.3	0.76	mg/Kg	1	ф	9056A	Total/NA
Nitrate as N	25		2.3	0.77	mg/Kg	1	₩	9056A	Total/NA
Sulfate	9.6		2.3		mg/Kg	1	₽	9056A	Total/NA
pH	6.9	HF	0.1		SU	1		9045D	Soluble
Gravel	0.2			• • • • • • • • • • • • • • • • • • • •	%	1		D422	Total/NA
Sieve Size 3 inch - Percent Finer	100.0				% Passing	1		D422	Total/NA
Sand	25.5				% 1 4661119	· · · · · · · · · · · · · · · · · · ·		D422	Total/NA
Sieve Size 2 inch - Percent Finer	100.0				% Passing	1		D422	Total/NA
Coarse Sand	0.3				% r dooning %	1		D422	Total/NA
Sieve Size 1.5 inch - Percent Finer	100.0				% Passing			D422	Total/NA
Medium Sand	4.3				% r assing	1		D422	Total/NA
Sieve Size 1 inch - Percent Finer	100.0				% Passing	1		D422 D422	Total/NA
Fine Sand	20.9				% 1 assing %			D422	Total/NA
Sieve Size 0.75 inch - Percent Finer	100.0				% Passing	1		D422 D422	Total/NA
Sieve Size 0.75 inch - Percent Finer	100.0				% Passing % Passing			D422 D422	Total/NA
						1			Total/NA
Silt	44.7 29.6				% %	1		D422	
Clay						1		D422	Total/NA
Sieve Size #4 - Percent Finer	99.8				% Passing	1		D422	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

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Client: Job Site Services Inc Project/Site: Waukegan, IL

Job ID: 500-184289-1

Client Sample ID: TS-1 (Continued)

Lab Sample ID: 500-184289-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sieve Size #10 - Percent Finer	99.5				% Passing	1	_	D422	Total/NA
Sieve Size #20 - Percent Finer	98.2				% Passing	1		D422	Total/NA
Sieve Size #40 - Percent Finer	95.2				% Passing	1		D422	Total/NA
Sieve Size #60 - Percent Finer	89.2				% Passing	1		D422	Total/NA
Sieve Size #80 - Percent Finer	84.5				% Passing	1		D422	Total/NA
Sieve Size #100 - Percent Finer	81.8				% Passing	1		D422	Total/NA
Sieve Size #200 - Percent Finer	74.3				% Passing	1		D422	Total/NA
Hydrometer Reading 1 - Percent Finer	53.4				% Passing	1		D422	Total/NA
Hydrometer Reading 2 - Percent Finer	47.8				% Passing	1		D422	Total/NA
Hydrometer Reading 3 - Percent Finer	39.1				% Passing	1		D422	Total/NA
Hydrometer Reading 4 - Percent Finer	32.7				% Passing	1		D422	Total/NA
Hydrometer Reading 5 - Percent Finer	29.6				% Passing	1		D422	Total/NA
Hydrometer Reading 6 - Percent Finer	20.8				% Passing	1		D422	Total/NA
Hydrometer Reading 7 - Percent Finer	12.1				% Passing	1		D422	Total/NA

Client Sample ID: TS-2

Lab Sample ID: 500-184289-2

Analyte	Result	Qualifier	RL	MDL		Dil Fac		Method	Prep Type
Benzo[a]anthracene	0.0060	J	0.039	0.0052	mg/Kg	1	₩	8270D	Total/NA
Benzo[a]pyrene	0.024	J	0.039	0.0075	mg/Kg	1	₩	8270D	Total/NA
Benzo[b]fluoranthene	0.030	J	0.039	0.0084	mg/Kg	1	₩	8270D	Total/NA
Chrysene	0.011	J	0.039	0.011	mg/Kg	1	₽	8270D	Total/NA
Dibenz(a,h)anthracene	0.027	J	0.039	0.0075	mg/Kg	1	₩	8270D	Total/NA
Fluoranthene	0.012	J	0.039	0.0072	mg/Kg	1	₩	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.024	J	0.039	0.010	mg/Kg	1	₩	8270D	Total/NA
Pyrene	0.017	J	0.039	0.0077	mg/Kg	1	₩	8270D	Total/NA
4,4'-DDT	0.0012	J	0.0021	0.0011	mg/Kg	1	₩	8081B	Total/NA
Dieldrin	0.0015	J	0.0021	0.00028	mg/Kg	1	₩	8081B	Total/NA
Antimony	0.67	J	1.1	0.22	mg/Kg	1	₩	6010B	Total/NA
Arsenic	6.2		0.56	0.19	mg/Kg	1	₩	6010B	Total/NA
Barium	82		0.56	0.064	mg/Kg	1	₩	6010B	Total/NA
Beryllium	0.72		0.22	0.052	mg/Kg	1	₩	6010B	Total/NA
Boron	6.5		2.8	0.26	mg/Kg	1	₩	6010B	Total/NA
Cadmium	0.15		0.11	0.020	mg/Kg	1	₩	6010B	Total/NA
Calcium	2900		11	1.9	mg/Kg	1	₩	6010B	Total/NA
Chromium	19		0.56	0.28	mg/Kg	1	₩	6010B	Total/NA
Cobalt	11		0.28	0.073	mg/Kg	1	₩	6010B	Total/NA
Copper	16		0.56	0.16	mg/Kg	1	₩	6010B	Total/NA
Iron	18000		11	5.8	mg/Kg	1	₩	6010B	Total/NA
Lead	20		0.28	0.13	mg/Kg	1	₩	6010B	Total/NA
Magnesium	3100		5.6	2.8	mg/Kg	1	₩	6010B	Total/NA
Manganese	590		0.56	0.081	mg/Kg	1	₩	6010B	Total/NA
Nickel	22		0.56	0.16	mg/Kg	1	₩	6010B	Total/NA
Potassium	2000		28	9.9	mg/Kg	1	₩	6010B	Total/NA
Selenium	0.50	J	0.56	0.33	mg/Kg	1	₩	6010B	Total/NA
Sodium	50	J	56	8.3	mg/Kg	1	₩	6010B	Total/NA
Vanadium	30		0.28	0.066	mg/Kg	1	₩	6010B	Total/NA
Zinc	75		1.1	0.49	mg/Kg	1	₩	6010B	Total/NA
Mercury	0.036		0.019	0.0064	mg/Kg	1	₩	7471B	Total/NA
Chromium, hexavalent	0.55	J	1.2	0.45	mg/Kg	1	₩	7196A	Total/NA
Chromium, trivalent	18		0.12		mg/Kg	1	₩	7196A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

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Job ID: 500-184289-1

Client: Job Site Services Inc Project/Site: Waukegan, IL

Client Sample ID: TS-2 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.7		2.4	2.1	mg/Kg	1	₩	9056A	Total/NA
Fluoride	10		2.4	0.81	mg/Kg	1	₩	9056A	Total/NA
Nitrate as N	23		2.4	0.82	mg/Kg	1	₩	9056A	Total/NA
Sulfate	8.9		2.4	1.1	mg/Kg	1	₩	9056A	Total/NA
рН	7.0	HF	0.1	0.1	SU	1		9045D	Soluble
Gravel	0.0				%	1		D422	Total/NA
Sieve Size 3 inch - Percent Finer	100.0				% Passing	1		D422	Total/NA
Sand	32.4				%	1		D422	Total/NA
Sieve Size 2 inch - Percent Finer	100.0				% Passing	1		D422	Total/NA
Coarse Sand	1.7				%	1		D422	Total/NA
Sieve Size 1.5 inch - Percent Finer	100.0				% Passing	1		D422	Total/NA
Medium Sand	4.6				%	1		D422	Total/NA
Sieve Size 1 inch - Percent Finer	100.0				% Passing	1		D422	Total/NA
Fine Sand	26.1				%	1		D422	Total/NA
Sieve Size 0.75 inch - Percent Finer	100.0				% Passing	1		D422	Total/NA
Sieve Size 0.375 inch - Percent Finer	100.0				% Passing	1		D422	Total/NA
Silt	40.5				%	1		D422	Total/NA
Clay	27.1				%	1		D422	Total/NA
Sieve Size #4 - Percent Finer	100.0				% Passing	1		D422	Total/NA
Sieve Size #10 - Percent Finer	98.3				% Passing	1		D422	Total/NA
Sieve Size #20 - Percent Finer	96.8				% Passing	1		D422	Total/NA
Sieve Size #40 - Percent Finer	93.7				% Passing	1		D422	Total/NA
Sieve Size #60 - Percent Finer	81.1				% Passing	1		D422	Total/NA
Sieve Size #80 - Percent Finer	77.0				% Passing	1		D422	Total/NA
Sieve Size #100 - Percent Finer	73.8				% Passing	1		D422	Total/NA
Sieve Size #200 - Percent Finer	67.6				% Passing	1		D422	Total/NA
Hydrometer Reading 1 - Percent Finer	49.0				% Passing	1		D422	Total/NA
Hydrometer Reading 2 - Percent Finer	46.1				% Passing	1		D422	Total/NA
Hydrometer Reading 3 - Percent Finer	40.3				% Passing	1		D422	Total/NA
Hydrometer Reading 4 - Percent Finer	33.7				% Passing	1		D422	Total/NA
Hydrometer Reading 5 - Percent Finer	27.1				% Passing	1		D422	Total/NA
Hydrometer Reading 6 - Percent Finer	20.6				% Passing	1		D422	Total/NA
Hydrometer Reading 7 - Percent Finer	12.5				% Passing	1		D422	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 500-184289-3

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D Method	Prep Type
Acetone	0.0055 J	0.010	0.0017 mg/L	1 8260B	Total/NA

This Detection Summary does not include radiochemical test results.

7/10/2020

Method Summary

Client: Job Site Services Inc Project/Site: Waukegan, IL

Job ID: 500-184289-1

Method	Method Description	Protocol	Laboratory
3260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
3270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
3081B	Organochlorine Pesticides (GC)	SW846	TAL CHI
3082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
151	Herbicides	SW846	TAL CHI
010B	Total Metals	SW846	TAL CHI
471B	Mercury (CVAA)	SW846	TAL CHI
'196A	Chromium, Hexavalent	SW846	TAL CHI
196A	Chromium, Trivalent (Colorimetric)	SW846	TAL CHI
014	Cyanide	SW846	TAL CHI
045D	pH	SW846	TAL CF
056A	Anions, Ion Chromatography	SW846	TAL CHI
Noisture	Percent Moisture	EPA	TAL CHI
)422	Grain Size	ASTM	TAL BUR
00_Prep	Anions, Ion Chromatography, 10% Wt/Vol	MCAWW	TAL CHI
050B	Preparation, Metals	SW846	TAL CHI
060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	TAL CHI
541	Automated Soxhlet Extraction	SW846	TAL CHI
030B	Purge and Trap	SW846	TAL CHI
035	Closed System Purge and Trap	SW846	TAL CHI
471B	Preparation, Mercury	SW846	TAL CHI
151A	Extraction (Herbicides)	SW846	TAL CHI
010B	Cyanide, Distillation	SW846	TAL CHI
I Leach	Deionized Water Leaching Procedure	ASTM	TAL CF

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Job Site Services Inc Project/Site: Waukegan, IL Job ID: 500-184289-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	As
500-184289-1	TS-1	Solid	06/30/20 07:45	06/30/20 15:20	
500-184289-2	TS-2	Solid	06/30/20 08:00	06/30/20 15:20	
500-184289-3	Trip Blank	Water	06/30/20 00:00	06/30/20 15:20	

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Client: Job Site Services Inc
Project/Site: Waukegan, IL

Job ID: 500-184289-1

Client Sample ID: TS-1 Lab Sample ID: 500-184289-1

Date Collected: 06/30/20 07:45

Date Received: 06/30/20 15:20

Matrix: Solid
Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.012		0.026	0.012	mg/Kg	₽	06/30/20 17:51	07/06/20 12:04	1
Benzene	<0.00067		0.0026	0.00067	mg/Kg	₩	06/30/20 17:51	07/06/20 12:04	1
Bromodichloromethane	<0.00054		0.0026	0.00054	mg/Kg	☼	06/30/20 17:51	07/06/20 12:04	1
Bromoform	<0.00077		0.0026	0.00077	mg/Kg		06/30/20 17:51	07/06/20 12:04	1
Bromomethane	<0.0025		0.0066	0.0025	mg/Kg	₩	06/30/20 17:51	07/06/20 12:04	1
Carbon disulfide	<0.0014		0.0066	0.0014	mg/Kg	☼	06/30/20 17:51	07/06/20 12:04	1
Carbon tetrachloride	<0.00077		0.0026	0.00077	mg/Kg	φ.	06/30/20 17:51	07/06/20 12:04	1
Chlorobenzene	<0.00098		0.0026	0.00098	mg/Kg	☼	06/30/20 17:51	07/06/20 12:04	1
Chloroform	<0.00092		0.0026	0.00092	mg/Kg	☼	06/30/20 17:51	07/06/20 12:04	1
cis-1,2-Dichloroethene	<0.00074		0.0026	0.00074	mg/Kg	₽	06/30/20 17:51	07/06/20 12:04	1
Dibromochloromethane	<0.00087		0.0026	0.00087	mg/Kg	☼	06/30/20 17:51	07/06/20 12:04	1
1,2-Dibromo-3-Chloropropane	<0.0027		0.0066	0.0027	mg/Kg	☼	06/30/20 17:51	07/06/20 12:04	1
1,2-Dibromoethane	<0.0010		0.0026	0.0010	mg/Kg	₩	06/30/20 17:51	07/06/20 12:04	1
1,1-Dichloroethane	<0.00091		0.0026	0.00091	mg/Kg	☼	06/30/20 17:51	07/06/20 12:04	1
1,2-Dichloroethane	<0.0021		0.0066	0.0021	mg/Kg	☼	06/30/20 17:51	07/06/20 12:04	1
1,1-Dichloroethene	<0.00091		0.0026	0.00091	mg/Kg		06/30/20 17:51	07/06/20 12:04	1
1,2-Dichloropropane	<0.00068		0.0026	0.00068	mg/Kg	☼	06/30/20 17:51	07/06/20 12:04	1
1,3-Dichloropropene, Total	< 0.00093		0.0026	0.00093	mg/Kg	₩	06/30/20 17:51	07/06/20 12:04	1
Ethylbenzene	<0.0013		0.0026	0.0013	mg/Kg		06/30/20 17:51	07/06/20 12:04	1
Methylene Chloride	< 0.0026		0.0066	0.0026	mg/Kg	☼	06/30/20 17:51	07/06/20 12:04	1
m&p-Xylene	<0.00084		0.0053	0.00084	mg/Kg	☼	06/30/20 17:51	07/06/20 12:04	1
o-Xylene	<0.00085		0.0026	0.00085	mg/Kg		06/30/20 17:51	07/06/20 12:04	1
Styrene	<0.00080		0.0026	0.00080	mg/Kg	☼	06/30/20 17:51	07/06/20 12:04	1
Tetrachloroethene	<0.00090		0.0026	0.00090	mg/Kg	☼	06/30/20 17:51	07/06/20 12:04	1
Toluene	<0.00067		0.0026	0.00067	mg/Kg	₽	06/30/20 17:51	07/06/20 12:04	1
trans-1,2-Dichloroethene	<0.0012		0.0026	0.0012	mg/Kg	☼	06/30/20 17:51	07/06/20 12:04	1
1,1,1-Trichloroethane	<0.00089		0.0026	0.00089	mg/Kg	☼	06/30/20 17:51	07/06/20 12:04	1
1,1,2-Trichloroethane	<0.0011		0.0026	0.0011	mg/Kg	₽	06/30/20 17:51	07/06/20 12:04	1
Trichloroethene	<0.00089		0.0026	0.00089	mg/Kg	☼	06/30/20 17:51	07/06/20 12:04	1
Vinyl acetate	< 0.0023		0.0066	0.0023	mg/Kg	₩	06/30/20 17:51	07/06/20 12:04	1
Vinyl chloride	<0.0012		0.0026	0.0012	mg/Kg	☆	06/30/20 17:51	07/06/20 12:04	1
Xylenes, Total	<0.00085		0.0053	0.00085	mg/Kg	☼	06/30/20 17:51	07/06/20 12:04	1
n-Butyl alcohol	<0.083		0.17	0.083	mg/Kg	₽	06/30/20 17:51	07/06/20 12:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		75 - 131				06/30/20 17:51	07/06/20 12:04	1
Dibromofluoromethane	94		75 - 126				06/30/20 17:51	07/06/20 12:04	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 134				06/30/20 17:51	07/06/20 12:04	1
Toluene-d8 (Surr)	99		75 - 124				06/30/20 17:51	07/06/20 12:04	1

Method: 8270D - Semivola	tile Organic Co	mpounds (GC/MS)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.0069		0.038	0.0069	mg/Kg	<u> </u>	07/02/20 08:20	07/03/20 00:47	1
Anthracene	< 0.0064		0.038	0.0064	mg/Kg	₽	07/02/20 08:20	07/03/20 00:47	1
Benzo[a]anthracene	0.0066	J	0.038	0.0052	mg/Kg	☼	07/02/20 08:20	07/03/20 00:47	1
Benzo[a]pyrene	0.024	J	0.038	0.0075	mg/Kg	₽	07/02/20 08:20	07/03/20 00:47	1
Benzo[b]fluoranthene	0.030	J	0.038	0.0083	mg/Kg	☼	07/02/20 08:20	07/03/20 00:47	1
Benzoic acid	<0.38		1.9	0.38	mg/Kg	☼	07/02/20 08:20	07/03/20 00:47	1
Benzo[k]fluoranthene	<0.011		0.038	0.011	mg/Kg	₽	07/02/20 08:20	07/03/20 00:47	1
Bis(2-chloroethyl)ether	<0.058		0.19	0.058	mg/Kg	≎	07/02/20 08:20	07/03/20 00:47	1

Eurofins TestAmerica, Chicago

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Client: Job Site Services Inc
Project/Site: Waukegan, IL

Job ID: 500-184289-1

Client Sample ID: TS-1 Lab Sample ID: 500-184289-1

Date Collected: 06/30/20 07:45

Date Received: 06/30/20 15:20

Matrix: Solid
Percent Solids: 83.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	<0.071		0.19	0.071	mg/Kg	☆	07/02/20 08:20	07/03/20 00:47	1
Butyl benzyl phthalate	<0.073		0.19	0.073	mg/Kg	☆	07/02/20 08:20	07/03/20 00:47	1
Carbazole	<0.096		0.19	0.096	mg/Kg	≎	07/02/20 08:20	07/03/20 00:47	1
Carbofuran	<0.089		0.78	0.089	mg/Kg	≎	07/02/20 08:20	07/03/20 00:47	1
4-Chloroaniline	<0.18		0.78	0.18	mg/Kg	☼	07/02/20 08:20	07/03/20 00:47	1
2-Chlorophenol	<0.066		0.19	0.066	mg/Kg	≎	07/02/20 08:20	07/03/20 00:47	1
Chrysene	<0.011		0.038	0.011	mg/Kg	≎	07/02/20 08:20	07/03/20 00:47	1
Dibenz(a,h)anthracene	0.026	J	0.038	0.0075	mg/Kg	₽	07/02/20 08:20	07/03/20 00:47	1
1,2-Dichlorobenzene	<0.046		0.19	0.046	mg/Kg	₩	07/02/20 08:20	07/03/20 00:47	1
1,4-Dichlorobenzene	< 0.050		0.19	0.050	mg/Kg	☆	07/02/20 08:20	07/03/20 00:47	1
3,3'-Dichlorobenzidine	<0.054		0.19	0.054	mg/Kg	₽	07/02/20 08:20	07/03/20 00:47	1
2,4-Dichlorophenol	< 0.092		0.38	0.092	mg/Kg	≎	07/02/20 08:20	07/03/20 00:47	1
Diethyl phthalate	< 0.065		0.19	0.065	mg/Kg	₩	07/02/20 08:20	07/03/20 00:47	1
2,4-Dimethylphenol	<0.15		0.38	0.15	mg/Kg		07/02/20 08:20	07/03/20 00:47	1
Di-n-butyl phthalate	< 0.059		0.19	0.059	mg/Kg	₩	07/02/20 08:20	07/03/20 00:47	1
2,4-Dinitrophenol	<0.68		0.78	0.68	mg/Kg	☆	07/02/20 08:20	07/03/20 00:47	1
2,4-Dinitrotoluene	<0.061		0.19	0.061	mg/Kg		07/02/20 08:20	07/03/20 00:47	1
2,6-Dinitrotoluene	< 0.076		0.19	0.076	mg/Kg	≎	07/02/20 08:20	07/03/20 00:47	1
Di-n-octyl phthalate	< 0.063		0.19	0.063	mg/Kg	☆	07/02/20 08:20	07/03/20 00:47	1
Fluoranthene	0.011	J	0.038	0.0072	mg/Kg		07/02/20 08:20	07/03/20 00:47	1
Fluorene	< 0.0054		0.038	0.0054		₩	07/02/20 08:20	07/03/20 00:47	1
Hexachlorobenzene	<0.0089		0.078	0.0089	mg/Kg	₩	07/02/20 08:20	07/03/20 00:47	1
Hexachlorocyclopentadiene	<0.22		0.78		mg/Kg	· · · · · · · · · · · · · · · · · · ·	07/02/20 08:20	07/03/20 00:47	1
Hexachloroethane	< 0.059		0.19		mg/Kg	≎	07/02/20 08:20	07/03/20 00:47	1
Indeno[1,2,3-cd]pyrene	0.025	J	0.038		mg/Kg	≎	07/02/20 08:20	07/03/20 00:47	1
Isophorone	<0.043		0.19		mg/Kg	· · · · · · · · · · · · · · · · · · ·	07/02/20 08:20	07/03/20 00:47	1
2-Methylphenol	< 0.062		0.19		mg/Kg	≎	07/02/20 08:20	07/03/20 00:47	1
Naphthalene	<0.0059		0.038	0.0059		₩	07/02/20 08:20	07/03/20 00:47	1
Nitrobenzene	<0.0096		0.038	0.0096		· · · · · · · · · · · · · · · · · · ·	07/02/20 08:20	07/03/20 00:47	1
N-Nitrosodi-n-propylamine	< 0.047		0.078		mg/Kg	₩	07/02/20 08:20	07/03/20 00:47	1
N-Nitrosodiphenylamine	<0.046		0.19		mg/Kg	₩	07/02/20 08:20	07/03/20 00:47	1
Phenol	<0.086		0.19		mg/Kg			07/03/20 00:47	1
Pyrene	0.015	J	0.038	0.0077		☆	07/02/20 08:20	07/03/20 00:47	1
1,2,4-Trichlorobenzene	<0.042		0.19		mg/Kg	☆		07/03/20 00:47	1
2,4,5-Trichlorophenol	<0.088		0.38		mg/Kg	· · · · · · · · · · · · · · · · · · ·		07/03/20 00:47	1
2,4,6-Trichlorophenol	<0.13		0.38		mg/Kg	₽		07/03/20 00:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	83		43 - 145				07/02/20 08:20		1
2-Fluorophenol	79		31 - 166				07/02/20 08:20	07/03/20 00:47	1
Nitrobenzene-d5	66		37 - 147				07/02/20 08:20	07/03/20 00:47	1
Phenol-d5	81		30 - 153				07/02/20 08:20	07/03/20 00:47	1
Terphenyl-d14	104		42 - 157				07/02/20 08:20	07/03/20 00:47	1
2,4,6-Tribromophenol	71		31 - 143				07/02/20 08:20	07/03/20 00:47	1
Method: 8081B - Organoc Analyte		es (GC) Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Eurofins TestAmerica, Chicago

□ 7/06/20 07:28 □ 07/07/20 17:32
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0.020

0.0020

0.0020

0.0071 mg/Kg

0.00083 mg/Kg

0.00051 mg/Kg

<0.0071

<0.00083

< 0.00051

Alachlor

alpha-BHC

Aldrin

2

3

5

7

9

11

13

Client: Job Site Services Inc Project/Site: Waukegan, IL

Date Collected: 06/30/20 07:45

Date Received: 06/30/20 15:20

Client Sample ID: TS-1

Antimony

Arsenic

Lab Sample ID: 500-184289-1

Matrix: Solid

Percent Solids: 83.2

Job ID: 500-184289-1

ne Pesticid	les (GC) (Co	ontinued)						
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<0.042		0.20	0.042	mg/Kg	<u> </u>	07/06/20 07:28	07/07/20 17:32	1
<0.0039		0.0080	0.0039	mg/Kg	₽	07/06/20 07:28	07/07/20 17:32	1
<0.00040		0.0020	0.00040	mg/Kg	₽	07/06/20 07:28	07/07/20 17:32	1
0.00040	J	0.0020	0.00033	mg/Kg	₽	07/06/20 07:28	07/07/20 17:32	1
<0.0011		0.0020	0.0011	mg/Kg	☼	07/06/20 07:28	07/07/20 17:32	1
0.0010	J	0.0020	0.00027	mg/Kg	₽	07/06/20 07:28	07/07/20 17:32	1
<0.00087		0.0020	0.00087	mg/Kg	.	07/06/20 07:28	07/07/20 17:32	1
<0.00032		0.0020	0.00032	mg/Kg	₩	07/06/20 07:28	07/07/20 17:32	1
<0.00028		0.0020	0.00028	mg/Kg	₽	07/06/20 07:28	07/07/20 17:32	1
<0.00043		0.0020	0.00043	mg/Kg		07/06/20 07:28	07/07/20 17:32	1
<0.00084		0.0020	0.00084	mg/Kg	₩	07/06/20 07:28	07/07/20 17:32	1
<0.00071		0.0020	0.00071	mg/Kg	₽	07/06/20 07:28	07/07/20 17:32	1
<0.00039		0.0099	0.00039	mg/Kg		07/06/20 07:28	07/07/20 17:32	1
< 0.016		0.080	0.016	mg/Kg	₩	07/06/20 07:28	07/07/20 17:32	1
<0.0084		0.020	0.0084	mg/Kg	₩	07/06/20 07:28	07/07/20 17:32	1
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
92		33 - 148				07/06/20 07:28	07/07/20 17:32	1
78		30 - 121				07/06/20 07:28	07/07/20 17:32	1
	Result	Result Qualifier <0.042 <0.0039 <0.00040 0.00040 J <0.0011 0.0010 J <0.00087 <0.00032 <0.00028 <0.00043 <0.00084 <0.00071 <0.00039 <0.016 <0.0084 %Recovery Qualifier 92	<0.042	Result Qualifier RL MDL <0.042	Result Qualifier RL MDL unit <0.042	Result Qualifier RL MDL Unit D <0.042	Result Qualifier RL MDL Unit D Prepared <0.042	Result Qualifier RL MDL Unit D Prepared Analyzed <0.042

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0071		0.020	0.0071	mg/Kg	₩	07/07/20 07:26	07/07/20 21:48	1
PCB-1221	<0.0088		0.020	0.0088	mg/Kg	☼	07/07/20 07:26	07/07/20 21:48	1
PCB-1232	<0.0087		0.020	0.0087	mg/Kg	☼	07/07/20 07:26	07/07/20 21:48	1
PCB-1242	<0.0066		0.020	0.0066	mg/Kg	₽	07/07/20 07:26	07/07/20 21:48	1
PCB-1248	< 0.0079		0.020	0.0079	mg/Kg	☼	07/07/20 07:26	07/07/20 21:48	1
PCB-1254	< 0.0043		0.020	0.0043	mg/Kg	☼	07/07/20 07:26	07/07/20 21:48	1
PCB-1260	<0.0098		0.020	0.0098	mg/Kg		07/07/20 07:26	07/07/20 21:48	1
Polychlorinated biphenyls, Total	<0.0038		0.020	0.0038	mg/Kg	₩	07/07/20 07:26	07/07/20 21:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		49 - 129				07/07/20 07:26	07/07/20 21:48	1
							07/07/00 07 00	07/07/00 04:40	
DCB Decachlorobiphenyl	96		37 - 121				07/07/20 07:26	07/07/20 21:48	1
	96		37 - 121				07/07/20 07:26	07/07/20 21:48	1
Method: 8151 - Herbicides									·
Method: 8151 - Herbicides Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Method: 8151 - Herbicides		Qualifier		MDL 0.11	Unit mg/Kg	D <u>□</u>			Dil Fac
Method: 8151 - Herbicides Analyte	Result	Qualifier	RL		mg/Kg	_	Prepared	Analyzed 07/07/20 04:05	Dil Fac 10 10
Method: 8151 - Herbicides Analyte 2,4-D	Result <0.11	Qualifier	RL 0.38	0.11	mg/Kg	\	Prepared 07/05/20 08:50	Analyzed 07/07/20 04:05 07/07/20 04:05	Dil Fac
Method: 8151 - Herbicides Analyte 2,4-D Dalapon	Result <0.11 <0.090	Qualifier	RL 0.38 0.78	0.11	mg/Kg mg/Kg	— *	Prepared 07/05/20 08:50 07/05/20 08:50	Analyzed 07/07/20 04:05 07/07/20 04:05 07/07/20 04:05	Dil Fac 10 10 10
Method: 8151 - Herbicides Analyte 2,4-D Dalapon Dinoseb	Result <0.11 <0.090 <0.19	Qualifier	RL 0.38 0.78 0.78	0.11 0.090 0.19	mg/Kg mg/Kg mg/Kg mg/Kg	— *	Prepared 07/05/20 08:50 07/05/20 08:50 07/05/20 08:50	Analyzed 07/07/20 04:05 07/07/20 04:05 07/07/20 04:05 07/07/20 04:05	Dil Fac 10 10 10
Method: 8151 - Herbicides Analyte 2,4-D Dalapon Dinoseb Pentachlorophenol	Result <0.11 <0.090 <0.19 <0.071	Qualifier	RL 0.38 0.78 0.78 0.19	0.11 0.090 0.19 0.071 0.080	mg/Kg mg/Kg mg/Kg mg/Kg	# # # # # # # # # # # # # # # # # # #	Prepared 07/05/20 08:50 07/05/20 08:50 07/05/20 08:50 07/05/20 08:50 07/05/20 08:50	Analyzed 07/07/20 04:05 07/07/20 04:05 07/07/20 04:05 07/07/20 04:05	10 10 10 10 10
Method: 8151 - Herbicides Analyte 2,4-D Dalapon Dinoseb Pentachlorophenol Picloram	Result <0.11 <0.090 <0.19 <0.071 <0.080		RL 0.38 0.78 0.78 0.19 0.19	0.11 0.090 0.19 0.071 0.080	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	# # # # #	Prepared 07/05/20 08:50 07/05/20 08:50 07/05/20 08:50 07/05/20 08:50 07/05/20 08:50	Analyzed 07/07/20 04:05 07/07/20 04:05 07/07/20 04:05 07/07/20 04:05 07/07/20 04:05	Dil Fac 10 10 10 10 10
Method: 8151 - Herbicides Analyte 2,4-D Dalapon Dinoseb Pentachlorophenol Picloram Silvex (2,4,5-TP)	Result <0.11 <0.090 <0.19 <0.071 <0.080 <0.099		RL 0.38 0.78 0.78 0.19 0.19 0.38	0.11 0.090 0.19 0.071 0.080	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	# # # # #	Prepared 07/05/20 08:50 07/05/20 08:50 07/05/20 08:50 07/05/20 08:50 07/05/20 08:50 07/05/20 08:50	Analyzed 07/07/20 04:05 07/07/20 04:05 07/07/20 04:05 07/07/20 04:05 07/07/20 04:05 07/07/20 04:05 Analyzed	Dil Fac 10 10 10 10 10 10 Dil Fac
Method: 8151 - Herbicides Analyte 2,4-D Dalapon Dinoseb Pentachlorophenol Picloram Silvex (2,4,5-TP) Surrogate	Result <0.11 <0.090 <0.19 <0.071 <0.080 <0.099		RL 0.38 0.78 0.78 0.19 0.19 0.38	0.11 0.090 0.19 0.071 0.080	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	# # # # #	Prepared 07/05/20 08:50 07/05/20 08:50 07/05/20 08:50 07/05/20 08:50 07/05/20 08:50 07/05/20 08:50	Analyzed 07/07/20 04:05 07/07/20 04:05 07/07/20 04:05 07/07/20 04:05 07/07/20 04:05 07/07/20 04:05 Analyzed	Dil Fac 10 10

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© 07/02/20 06:54 07/06/20 00:28

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1.1

0.56

0.22 mg/Kg

0.19 mg/Kg

0.66 J

5.8

2

3

5

7

9

10

12

14

15

7/10/2020

Client: Job Site Services Inc Project/Site: Waukegan, IL

Medium Sand

Sieve Size 1 inch - Percent Finer

Client Sample ID: TS-1 Lab Sample ID: 500-184289-1

Date Collected: 06/30/20 07:45

Date Received: 06/30/20 15:20

Matrix: Solid

Percent Solids: 83.2

Method: 6010B - Total Metals (C									
Analyte		Qualifier	RL	MDL		_ D	Prepared	Analyzed	Dil Fa
Barium	67		0.56		mg/Kg	₩	07/02/20 06:54		
Beryllium	0.66		0.22	0.052	mg/Kg	₩	07/02/20 06:54	07/06/20 00:28	
Boron	4.8		2.8	0.26	mg/Kg	₩	07/02/20 06:54	07/06/20 00:28	
Cadmium	0.11		0.11		mg/Kg	₩	07/02/20 06:54	07/06/20 00:28	
Calcium	2600		11	1.9	mg/Kg	₽	07/02/20 06:54	07/06/20 00:28	
Chromium	18		0.56		mg/Kg	₩	07/02/20 06:54	07/06/20 00:28	
Cobalt	10		0.28	0.073	mg/Kg	₩	07/02/20 06:54	07/06/20 00:28	
Copper	14		0.56	0.16	mg/Kg	₩	07/02/20 06:54	07/06/20 00:28	
ron	16000		11	5.8	mg/Kg	₩	07/02/20 06:54	07/06/20 00:28	
_ead	17		0.28	0.13	mg/Kg	₩	07/02/20 06:54	07/06/20 00:28	
Magnesium	2900		5.6	2.8	mg/Kg	₩	07/02/20 06:54	07/06/20 00:28	
Manganese	500		0.56	0.081	mg/Kg	₩	07/02/20 06:54	07/06/20 00:28	
Nickel	21		0.56	0.16	mg/Kg	☼	07/02/20 06:54	07/06/20 00:28	
Potassium	1800		28	9.8	mg/Kg		07/02/20 06:54	07/06/20 00:28	
Selenium	0.65		0.56	0.33	mg/Kg	₩	07/02/20 06:54	07/06/20 00:28	
Silver	< 0.072		0.28	0.072	mg/Kg	₩	07/02/20 06:54	07/06/20 00:28	
Sodium	41		56	8.2	mg/Kg	Т	07/02/20 06:54	07/06/20 00:28	
Гhallium	<0.28		0.56	0.28	mg/Kg	₩	07/02/20 06:54	07/06/20 00:28	
/anadium	27		0.28	0.066	mg/Kg	₩	07/02/20 06:54	07/06/20 00:28	
Zinc	71		1.1	0.49	mg/Kg	 .	07/02/20 06:54	07/06/20 00:28	
Mercury General Chemistry	0.037			0.0065					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Chromium, hexavalent	<0.46		1.2	0.46	mg/Kg	\	07/06/20 20:19	07/07/20 20:45	
Chromium, trivalent	18		0.12	0.12	mg/Kg	₩		07/10/20 12:04	
Cyanide, Total	0.29	J F2	0.55	0.28	mg/Kg	₩	07/07/20 09:10	07/07/20 15:15	
Cyanide, Amenable	<0.28		0.55	0.28	mg/Kg	.	07/07/20 09:10	07/07/20 15:12	
Chloride	3.0		2.3	1.9	mg/Kg	₩	07/07/20 19:54	07/07/20 22:11	
Fluoride	11	F1	2.3	0.76	mg/Kg	☼	07/07/20 19:54	07/07/20 22:11	
Nitrate as N	25		2.3		mg/Kg		07/07/20 19:54	07/07/20 22:11	
Sulfate	9.6		2.3	1.1	mg/Kg	☼	07/07/20 19:54	07/07/20 22:11	
General Chemistry - Soluble									
Analyte		Qualifier	RL _	MDL		_ D	Prepared	Analyzed	Dil Fa
H	6.9	HF	0.1	0.1	SU			07/07/20 10:49	
Method: D422 - Grain Size Analyte	Rosult	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Gravel	0.2			MIDE	%		- riepaieu	07/01/20 21:36	DII Fa
Sieve Size 3 inch - Percent Finer					% Passing			07/01/20 21:36	
	100.0				% Passing			07/01/20 21:36	
Sand	25.5								
Sieve Size 2 inch - Percent Finer	100.0				% Passing			07/01/20 21:36	
Coarse Sand	0.3				% Passing			07/01/20 21:36	
Sieve Size 1.5 inch - Percent Finer	100.0				% Passing			07/01/20 21:36	

Eurofins TestAmerica, Chicago

07/01/20 21:36

07/01/20 21:36

100.0

% Passing

G

Job ID: 500-184289-1

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ica, Ornicago

7/10/2020

Client: Job Site Services Inc Job ID: 500-184289-1

Project/Site: Waukegan, IL

Client Sample ID: TS-1 Lab Sample ID: 500-184289-1

Date Collected: 06/30/20 07:45 **Matrix: Solid** Date Received: 06/30/20 15:20 Percent Solids: 83.2

Analyte	Result Qu	alifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fine Sand	20.9				%			07/01/20 21:36	1
Sieve Size 0.75 inch - Percent Finer	100.0				% Passing			07/01/20 21:36	1
Sieve Size 0.375 inch - Percent Finer	100.0				% Passing			07/01/20 21:36	1
Silt	44.7				%			07/01/20 21:36	1
Clay	29.6				%			07/01/20 21:36	1
Sieve Size #4 - Percent Finer	99.8				% Passing			07/01/20 21:36	1
Sieve Size #10 - Percent Finer	99.5				% Passing			07/01/20 21:36	1
Sieve Size #20 - Percent Finer	98.2				% Passing			07/01/20 21:36	1
Sieve Size #40 - Percent Finer	95.2				% Passing			07/01/20 21:36	1
Sieve Size #60 - Percent Finer	89.2				% Passing			07/01/20 21:36	1
Sieve Size #80 - Percent Finer	84.5				% Passing			07/01/20 21:36	1
Sieve Size #100 - Percent Finer	81.8				% Passing			07/01/20 21:36	1
Sieve Size #200 - Percent Finer	74.3				% Passing			07/01/20 21:36	1
Hydrometer Reading 1 - Percent Finer	53.4				% Passing			07/01/20 21:36	1
Hydrometer Reading 2 - Percent Finer	47.8				% Passing			07/01/20 21:36	1
Hydrometer Reading 3 - Percent Finer	39.1				% Passing			07/01/20 21:36	1
Hydrometer Reading 4 - Percent Finer	32.7				% Passing			07/01/20 21:36	1
Hydrometer Reading 5 - Percent Finer	29.6				% Passing			07/01/20 21:36	1
Hydrometer Reading 6 - Percent Finer	20.8				% Passing			07/01/20 21:36	1
Hydrometer Reading 7 - Percent Finer	12.1				% Passing			07/01/20 21:36	1

Job ID: 500-184289-1

Client: Job Site Services Inc Project/Site: Waukegan, IL

Lab Sample ID: 500-184289-2

Client Sample ID: TS-2 Date Collected: 06/30/20 08:00 **Matrix: Solid** Date Received: 06/30/20 15:20 Percent Solids: 82.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.012		0.028	0.012	mg/Kg	₩	06/30/20 17:51	07/06/20 12:31	1
Benzene	< 0.00072		0.0028	0.00072	mg/Kg	₩	06/30/20 17:51	07/06/20 12:31	1
Bromodichloromethane	<0.00057		0.0028	0.00057	mg/Kg	₩	06/30/20 17:51	07/06/20 12:31	1
Bromoform	<0.00082		0.0028	0.00082	mg/Kg	φ.	06/30/20 17:51	07/06/20 12:31	1
Bromomethane	<0.0027		0.0070	0.0027	mg/Kg	₩	06/30/20 17:51	07/06/20 12:31	1
Carbon disulfide	<0.0015		0.0070	0.0015	mg/Kg	₩	06/30/20 17:51	07/06/20 12:31	1
Carbon tetrachloride	<0.00082		0.0028	0.00082	mg/Kg	₽	06/30/20 17:51	07/06/20 12:31	1
Chlorobenzene	<0.0010		0.0028	0.0010	mg/Kg	☼	06/30/20 17:51	07/06/20 12:31	1
Chloroform	<0.00098		0.0028	0.00098	mg/Kg	☼	06/30/20 17:51	07/06/20 12:31	1
cis-1,2-Dichloroethene	<0.00079		0.0028	0.00079	mg/Kg	₩.	06/30/20 17:51	07/06/20 12:31	1
Dibromochloromethane	<0.00092		0.0028	0.00092	mg/Kg	₩	06/30/20 17:51	07/06/20 12:31	1
1,2-Dibromo-3-Chloropropane	<0.0028		0.0070	0.0028	mg/Kg	☼	06/30/20 17:51	07/06/20 12:31	1
1,2-Dibromoethane	<0.0011		0.0028	0.0011	mg/Kg	₩.	06/30/20 17:51	07/06/20 12:31	1
1,1-Dichloroethane	< 0.00096		0.0028	0.00096	mg/Kg	☼	06/30/20 17:51	07/06/20 12:31	1
1,2-Dichloroethane	<0.0022		0.0070	0.0022	mg/Kg	₩	06/30/20 17:51	07/06/20 12:31	1
1,1-Dichloroethene	<0.00097		0.0028	0.00097	mg/Kg	₩	06/30/20 17:51	07/06/20 12:31	1
1,2-Dichloropropane	< 0.00073		0.0028	0.00073	mg/Kg	☼	06/30/20 17:51	07/06/20 12:31	1
1,3-Dichloropropene, Total	< 0.00099		0.0028	0.00099	mg/Kg	☼	06/30/20 17:51	07/06/20 12:31	1
Ethylbenzene	<0.0013		0.0028	0.0013	mg/Kg	₩.	06/30/20 17:51	07/06/20 12:31	1
Methylene Chloride	<0.0028		0.0070	0.0028	mg/Kg	☼	06/30/20 17:51	07/06/20 12:31	1
m&p-Xylene	<0.00089		0.0056	0.00089	mg/Kg	☼	06/30/20 17:51	07/06/20 12:31	1
o-Xylene	<0.00090		0.0028	0.00090	mg/Kg	₩.	06/30/20 17:51	07/06/20 12:31	1
Styrene	<0.00085		0.0028	0.00085	mg/Kg	☼	06/30/20 17:51	07/06/20 12:31	1
Tetrachloroethene	< 0.00096		0.0028	0.00096	mg/Kg	☼	06/30/20 17:51	07/06/20 12:31	1
Toluene	<0.00071		0.0028	0.00071	mg/Kg	₩	06/30/20 17:51	07/06/20 12:31	1
trans-1,2-Dichloroethene	< 0.0012		0.0028	0.0012	mg/Kg	☼	06/30/20 17:51	07/06/20 12:31	1
1,1,1-Trichloroethane	< 0.00094		0.0028	0.00094	mg/Kg	☼	06/30/20 17:51	07/06/20 12:31	1
1,1,2-Trichloroethane	<0.0012		0.0028	0.0012	mg/Kg	₽	06/30/20 17:51	07/06/20 12:31	1
Trichloroethene	< 0.00095		0.0028	0.00095	mg/Kg	☼	06/30/20 17:51	07/06/20 12:31	1
Vinyl acetate	< 0.0024		0.0070	0.0024	mg/Kg	₩	06/30/20 17:51	07/06/20 12:31	1
Vinyl chloride	<0.0012		0.0028	0.0012	mg/Kg	₽	06/30/20 17:51	07/06/20 12:31	1
Xylenes, Total	<0.00090		0.0056	0.00090	mg/Kg	☼	06/30/20 17:51	07/06/20 12:31	1
n-Butyl alcohol	<0.089		0.18	0.089	mg/Kg	₩	06/30/20 17:51	07/06/20 12:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		75 - 131				06/30/20 17:51	07/06/20 12:31	1
Dibromofluoromethane	97		75 - 126				06/30/20 17:51	07/06/20 12:31	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 134				06/30/20 17:51	07/06/20 12:31	1
Toluene-d8 (Surr)	99		75 - 124				06/30/20 17:51	07/06/20 12:31	1

Method: 8270D - Semivola	atile Organic Co	mpounds (GC/MS)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.0070		0.039	0.0070	mg/Kg	<u> </u>	07/02/20 08:20	07/03/20 01:13	1
Anthracene	< 0.0065		0.039	0.0065	mg/Kg	₩	07/02/20 08:20	07/03/20 01:13	1
Benzo[a]anthracene	0.0060	J	0.039	0.0052	mg/Kg	₩	07/02/20 08:20	07/03/20 01:13	1
Benzo[a]pyrene	0.024	J	0.039	0.0075	mg/Kg	ф.	07/02/20 08:20	07/03/20 01:13	1
Benzo[b]fluoranthene	0.030	J	0.039	0.0084	mg/Kg	₩	07/02/20 08:20	07/03/20 01:13	1
Benzoic acid	< 0.39		1.9	0.39	mg/Kg	₩	07/02/20 08:20	07/03/20 01:13	1
Benzo[k]fluoranthene	<0.011		0.039	0.011	mg/Kg	ф.	07/02/20 08:20	07/03/20 01:13	1
Bis(2-chloroethyl)ether	<0.058		0.19	0.058	mg/Kg	₩	07/02/20 08:20	07/03/20 01:13	1

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Client: Job Site Services Inc
Project/Site: Waukegan, IL

Job ID: 500-184289-1

Client Sample ID: TS-2 Lab Sample ID: 500-184289-2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	<0.071		0.19	0.071	mg/Kg	₩	07/02/20 08:20	07/03/20 01:13	1
Butyl benzyl phthalate	< 0.074		0.19	0.074	mg/Kg	₽	07/02/20 08:20	07/03/20 01:13	1
Carbazole	< 0.097		0.19	0.097	mg/Kg	☼	07/02/20 08:20	07/03/20 01:13	1
Carbofuran	<0.089		0.78	0.089	mg/Kg	☼	07/02/20 08:20	07/03/20 01:13	1
4-Chloroaniline	<0.18		0.78	0.18	mg/Kg	₽	07/02/20 08:20	07/03/20 01:13	1
2-Chlorophenol	< 0.066		0.19	0.066	mg/Kg	☼	07/02/20 08:20	07/03/20 01:13	1
Chrysene	0.011	J	0.039	0.011	mg/Kg	☼	07/02/20 08:20	07/03/20 01:13	1
Dibenz(a,h)anthracene	0.027	J	0.039	0.0075	mg/Kg	₽	07/02/20 08:20	07/03/20 01:13	1
1,2-Dichlorobenzene	<0.046		0.19	0.046	mg/Kg	☼	07/02/20 08:20	07/03/20 01:13	1
1,4-Dichlorobenzene	< 0.050		0.19	0.050	mg/Kg	☼	07/02/20 08:20	07/03/20 01:13	1
3,3'-Dichlorobenzidine	<0.054		0.19	0.054	mg/Kg	₽	07/02/20 08:20	07/03/20 01:13	1
2,4-Dichlorophenol	<0.092		0.39	0.092	mg/Kg	☼	07/02/20 08:20	07/03/20 01:13	1
Diethyl phthalate	<0.066		0.19	0.066	mg/Kg	☼	07/02/20 08:20	07/03/20 01:13	1
2,4-Dimethylphenol	<0.15		0.39	0.15	mg/Kg		07/02/20 08:20	07/03/20 01:13	1
Di-n-butyl phthalate	< 0.059		0.19		mg/Kg	☼	07/02/20 08:20	07/03/20 01:13	1
2,4-Dinitrophenol	<0.68		0.78		mg/Kg	☼	07/02/20 08:20	07/03/20 01:13	1
2,4-Dinitrotoluene	<0.062		0.19		mg/Kg	· · · · · · · · .	07/02/20 08:20	07/03/20 01:13	1
2,6-Dinitrotoluene	<0.076		0.19		mg/Kg	₩	07/02/20 08:20	07/03/20 01:13	1
Di-n-octyl phthalate	< 0.063		0.19		mg/Kg	☼	07/02/20 08:20	07/03/20 01:13	1
Fluoranthene	0.012		0.039	0.0072		φ.	07/02/20 08:20	07/03/20 01:13	1
Fluorene	<0.0054	-	0.039	0.0054		₩	07/02/20 08:20	07/03/20 01:13	1
Hexachlorobenzene	<0.0090		0.078	0.0090	0 0	☼	07/02/20 08:20	07/03/20 01:13	1
Hexachlorocyclopentadiene	<0.22		0.78		mg/Kg	φ.	07/02/20 08:20	07/03/20 01:13	1
Hexachloroethane	<0.059		0.19		mg/Kg	₩		07/03/20 01:13	1
Indeno[1,2,3-cd]pyrene	0.024	J	0.039	0.010	mg/Kg	☼	07/02/20 08:20	07/03/20 01:13	1
Isophorone	<0.044		0.19		mg/Kg			07/03/20 01:13	1
2-Methylphenol	<0.062		0.19		mg/Kg	₩		07/03/20 01:13	1
Naphthalene	<0.0060		0.039	0.0060	0 0	₩		07/03/20 01:13	1
Nitrobenzene	<0.0097		0.039	0.0097				07/03/20 01:13	1
N-Nitrosodi-n-propylamine	<0.047		0.078		mg/Kg	₩		07/03/20 01:13	1
N-Nitrosodiphenylamine	<0.046		0.19		mg/Kg	₩		07/03/20 01:13	1
Phenol	<0.086		0.19		mg/Kg			07/03/20 01:13	
Pyrene	0.017	Л	0.039	0.0077		☆		07/03/20 01:13	1
1,2,4-Trichlorobenzene	<0.042		0.19		mg/Kg	☆		07/03/20 01:13	1
2,4,5-Trichlorophenol	<0.088		0.39		mg/Kg	φ.		07/03/20 01:13	
2,4,6-Trichlorophenol	<0.13		0.39		mg/Kg	₽		07/03/20 01:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	85		43 - 145				07/02/20 08:20	07/03/20 01:13	1
2-Fluorophenol	78		31 - 166				07/02/20 08:20	07/03/20 01:13	1
Nitrobenzene-d5	67		37 - 147				07/02/20 08:20	07/03/20 01:13	1
Phenol-d5	83		30 - 153				07/02/20 08:20	07/03/20 01:13	1
Terphenyl-d14	106		42 - 157				07/02/20 08:20	07/03/20 01:13	1
2,4,6-Tribromophenol	70		31 - 143				07/02/20 08:20	07/03/20 01:13	1
- Method: 8081B - Organocl	nlorine Pesticide	es (GC)			Unit		Propared	Analyzed	

Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac Alachlor <0.0072 0.021 0.0072 mg/Kg 07/06/20 07:28 07/07/20 18:34 © 07/06/20 07:28 07/07/20 18:34 Aldrin <0.00084 0.0021 0.00084 mg/Kg 1 alpha-BHC < 0.00051 0.0021 0.00051 mg/Kg ☼ 07/06/20 07:28 07/07/20 18:34

Eurofins TestAmerica, Chicago

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. . 12

Job ID: 500-184289-1

Client Sample ID: TS-2

Lab Sample ID: 500-184289-2

Date Collected: 06/30/20 08:00 **Matrix: Solid** Date Received: 06/30/20 15:20 Percent Solids: 82.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Atrazine	<0.042		0.20	0.042	mg/Kg	₩	07/06/20 07:28	07/07/20 18:34	1
Chlordane (technical)	<0.0039		0.0081	0.0039	mg/Kg	₽	07/06/20 07:28	07/07/20 18:34	1
4,4'-DDD	<0.00040		0.0021	0.00040	mg/Kg	≎	07/06/20 07:28	07/07/20 18:34	1
4,4'-DDE	<0.00034		0.0021	0.00034	mg/Kg	₩	07/06/20 07:28	07/07/20 18:34	1
4,4'-DDT	0.0012	J	0.0021	0.0011	mg/Kg	₩	07/06/20 07:28	07/07/20 18:34	1
Dieldrin	0.0015	J	0.0021	0.00028	mg/Kg	☼	07/06/20 07:28	07/07/20 18:34	1
Endosulfan I	<0.00088		0.0021	0.00088	mg/Kg	₩	07/06/20 07:28	07/07/20 18:34	1
Endosulfan II	< 0.00033		0.0021	0.00033	mg/Kg	≎	07/06/20 07:28	07/07/20 18:34	1
Endrin	<0.00028		0.0021	0.00028	mg/Kg	≎	07/06/20 07:28	07/07/20 18:34	1
gamma-BHC (Lindane)	<0.00044		0.0021	0.00044	mg/Kg	ф.	07/06/20 07:28	07/07/20 18:34	1
Heptachlor	<0.00085		0.0021	0.00085	mg/Kg	≎	07/06/20 07:28	07/07/20 18:34	1
Heptachlor epoxide	< 0.00072		0.0021	0.00072	mg/Kg	₩	07/06/20 07:28	07/07/20 18:34	1
Methoxychlor	<0.00039		0.010	0.00039	mg/Kg	ф.	07/06/20 07:28	07/07/20 18:34	1
Simazine	<0.016		0.081	0.016	mg/Kg	≎	07/06/20 07:28	07/07/20 18:34	1
Toxaphene	<0.0085		0.020	0.0085	mg/Kg	☼	07/06/20 07:28	07/07/20 18:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	113		33 - 148				07/06/20 07:28	07/07/20 18:34	1
Tetrachloro-m-xylene	39		30 - 121				07/06/20 07:28	07/07/20 18:34	1
- -		vis (PCBs)		omatogr	aphy		07/06/20 07:28	07/07/20 18:34	1
Method: 8082A - Polychlorii	nated Biphen	/Is (PCBs) Qualifier		omatogr MDL		D	07/06/20 07:28 Prepared	07/07/20 18:34 Analyzed	1 Dil Fac
Method: 8082A - Polychlorii Analyte	nated Biphen		by Gas Chr			_ D ≅			Dil Fac
Method: 8082A - Polychlorii Analyte PCB-1016	nated Biphen Result		by Gas Chr	MDL	Unit mg/Kg		Prepared	Analyzed	
Method: 8082A - Polychlorii Analyte PCB-1016	nated Biphen Result		by Gas Chr RL 0.020	MDL 0.0071	Unit	<u>₩</u>	Prepared 07/07/20 07:26 07/07/20 07:26	Analyzed 07/07/20 22:35	
Method: 8082A - Polychlorii Analyte PCB-1016 PCB-1221	nated Biphen Result <0.0071 <0.0089		by Gas Chr RL 0.020 0.020	0.0071 0.0089	Unit mg/Kg mg/Kg mg/Kg	— ☆	Prepared 07/07/20 07:26 07/07/20 07:26	Analyzed 07/07/20 22:35 07/07/20 22:35	
Method: 8082A - Polychloria Analyte PCB-1016 PCB-1221 PCB-1232	nated Biphen Result <0.0071 <0.0089 <0.0088		by Gas Chr RL 0.020 0.020 0.020	MDL 0.0071 0.0089 0.0088	Unit mg/Kg mg/Kg mg/Kg	— ~	Prepared 07/07/20 07:26 07/07/20 07:26 07/07/20 07:26	Analyzed 07/07/20 22:35 07/07/20 22:35 07/07/20 22:35	1 1 1
Method: 8082A - Polychlorii Analyte PCB-1016 PCB-1221 PCB-1232 PCB-1242	nated Biphen Result <0.0071 <0.0089 <0.0088		by Gas Chr RL 0.020 0.020 0.020 0.020	0.0071 0.0089 0.0088 0.0066	mg/Kg mg/Kg mg/Kg mg/Kg	\$ \$	Prepared 07/07/20 07:26 07/07/20 07:26 07/07/20 07:26 07/07/20 07:26 07/07/20 07:26	Analyzed 07/07/20 22:35 07/07/20 22:35 07/07/20 22:35 07/07/20 22:35	1 1 1 1
Method: 8082A - Polychloria Analyte PCB-1016 PCB-1221 PCB-1232 PCB-1242 PCB-1248	Result <0.0071 <0.0089 <0.0066 <0.0079		by Gas Chr RL 0.020 0.020 0.020 0.020 0.020	0.0071 0.0089 0.0088 0.0066 0.0079	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	\$ \$	Prepared 07/07/20 07:26 07/07/20 07:26 07/07/20 07:26 07/07/20 07:26 07/07/20 07:26 07/07/20 07:26	Analyzed 07/07/20 22:35 07/07/20 22:35 07/07/20 22:35 07/07/20 22:35 07/07/20 22:35	1 1 1 1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	88		49 - 129	07/07/20 07:26	07/07/20 22:35	1
DCB Decachlorobiphenyl	111		37 - 121	07/07/20 07:26	07/07/20 22:35	1

Analyte	Result C	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	<0.11		0.40	0.11	mg/Kg	<u> </u>	07/05/20 08:50	07/07/20 04:24	10
Dalapon	<0.093		0.80	0.093	mg/Kg	☼	07/05/20 08:50	07/07/20 04:24	10
Dinoseb	<0.20		0.80	0.20	mg/Kg	₩	07/05/20 08:50	07/07/20 04:24	10
Pentachlorophenol	<0.073		0.20	0.073	mg/Kg	₩	07/05/20 08:50	07/07/20 04:24	10
Picloram	<0.083		0.20	0.083	mg/Kg	₩	07/05/20 08:50	07/07/20 04:24	10
Silvex (2,4,5-TP)	<0.10		0.40	0.10	mg/Kg	₩	07/05/20 08:50	07/07/20 04:24	10
Surrogate	%Recovery (Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCAA	49		25 - 120				07/05/20 08:50	07/07/20 04:24	10

Method: 6010B - Total Metals Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.67	J	1.1	0.22	mg/Kg	₩	07/02/20 06:54	07/06/20 00:32	1
Arsenic	6.2		0.56	0.19	mg/Kg	☆	07/02/20 06:54	07/06/20 00:32	1

Eurofins TestAmerica, Chicago

Client: Job Site Services Inc
Project/Site: Waukegan, IL

Job ID: 500-184289-1

Client Sample ID: TS-2 Lab Sample ID: 500-184289-2

Method: 6010B - Total Metals (Co Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Barium	82		0.56	0.064	mg/Kg	\	07/02/20 06:54	07/06/20 00:32	
Beryllium	0.72		0.22	0.052	mg/Kg	₩.	07/02/20 06:54	07/06/20 00:32	
Boron	6.5		2.8	0.26	mg/Kg	₩	07/02/20 06:54	07/06/20 00:32	
Cadmium	0.15		0.11	0.020	mg/Kg	₩	07/02/20 06:54	07/06/20 00:32	
Calcium	2900		11	1.9	mg/Kg	₩.	07/02/20 06:54	07/06/20 00:32	
Chromium	19		0.56	0.28	mg/Kg	₩	07/02/20 06:54	07/06/20 00:32	
Cobalt	11		0.28	0.073	mg/Kg	₩	07/02/20 06:54	07/06/20 00:32	
Copper	16		0.56	0.16	mg/Kg	#	07/02/20 06:54	07/06/20 00:32	
Iron	18000		11	5.8	mg/Kg	₩	07/02/20 06:54	07/06/20 00:32	
Lead	20		0.28	0.13	mg/Kg	₩	07/02/20 06:54	07/06/20 00:32	
Magnesium	3100		5.6	2.8	mg/Kg	₩.	07/02/20 06:54	07/06/20 00:32	
Manganese	590		0.56	0.081	mg/Kg	₩	07/02/20 06:54	07/06/20 00:32	
Nickel	22		0.56	0.16	mg/Kg	₩	07/02/20 06:54	07/06/20 00:32	
Potassium	2000		28	9.9	mg/Kg	.	07/02/20 06:54	07/06/20 00:32	
Selenium	0.50	J	0.56		mg/Kg	₩	07/02/20 06:54	07/06/20 00:32	
Silver	<0.072		0.28	0.072	mg/Kg	₩	07/02/20 06:54	07/06/20 00:32	
Sodium	50	J	56	8.3	mg/Kg		07/02/20 06:54	07/06/20 00:32	
Thallium	<0.28		0.56		mg/Kg	₩	07/02/20 06:54	07/06/20 00:32	
Vanadium	30		0.28	0.066	mg/Kg	₩	07/02/20 06:54	07/06/20 00:32	
Zinc	75		1.1	0.49	mg/Kg	 ‡	07/02/20 06:54	07/06/20 00:32	
Mercury General Chemistry	0.036		0.019	0.0064	mg/Kg	- ₹	07/02/20 13:30	07/06/20 11:38	
General Chemistry	Decult	Qualifier	RL	MDI	Unit	_	Duamanad	Amalumad	Dil Fa
Analyte Chromium hovevelent	0.55		1.2		mg/Kg	- D ☆	Prepared 07/06/20 20:10	Analyzed 07/07/20 20:46	
Chromium, hexavalent	18	J	0.12		mg/Kg	₽	07/00/20 20.19	07/10/20 12:04	
Chromium, trivalent	<0.29		0.12		mg/Kg	≎	07/07/20 00:10	07/07/20 15:16	
Cyanide, Total Cyanide, Amenable	<0.29		0.59		mg/Kg			07/07/20 15:14	
Chloride	2.7		2.4		mg/Kg	☼		07/07/20 13:14	
Fluoride	10		2.4		mg/Kg	≎		07/07/20 22:49	
Nitrate as N			2.4		mg/Kg	 ∵		07/07/20 22:49	
	23		2.4		mg/Kg	≎		07/07/20 22:49	
Sulfate	8.9		2.4	1.1	mg/rxg	Τ.	07/07/20 19:54	07/07/20 22.49	
General Chemistry - Soluble	Posult	Qualifier	DI	MDI	Unit	n	Propared	Analyzod	Dil Fa
Analyte		Qualifier HF	RL 0.1		Unit SU	_ D	Prepared	Analyzed 07/07/20 10:52	רווע ר
pH	7.0	nr	U. I	0.1	30			01/01/20 10.52	
Method: D422 - Grain Size									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Gravel	0.0				%			07/01/20 21:38	
Sieve Size 3 inch - Percent Finer	100.0				% Passing			07/01/20 21:38	
Sand	32.4				%			07/01/20 21:38	
Sieve Size 2 inch - Percent Finer	100.0				% Passing			07/01/20 21:38	
Coarse Sand	1.7				%			07/01/20 21:38	
Sieve Size 1.5 inch - Percent Finer	100.0				% Passing			07/01/20 21:38	
Medium Sand	4.6				%			07/01/20 21:38	
mediani dana	4.0								

Eurofins TestAmerica, Chicago

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11:

Client: Job Site Services Inc Job ID: 500-184289-1

Project/Site: Waukegan, IL

Date Received: 06/30/20 15:20

Client Sample ID: TS-2 Lab Sample ID: 500-184289-2 Date Collected: 06/30/20 08:00

Matrix: Solid

Percent Solids: 82.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fine Sand	26.1				%			07/01/20 21:38	1
Sieve Size 0.75 inch - Percent Finer	100.0				% Passing			07/01/20 21:38	1
Sieve Size 0.375 inch - Percent Finer	100.0				% Passing			07/01/20 21:38	1
Silt	40.5				%			07/01/20 21:38	1
Clay	27.1				%			07/01/20 21:38	1
Sieve Size #4 - Percent Finer	100.0				% Passing			07/01/20 21:38	1
Sieve Size #10 - Percent Finer	98.3				% Passing			07/01/20 21:38	1
Sieve Size #20 - Percent Finer	96.8				% Passing			07/01/20 21:38	1
Sieve Size #40 - Percent Finer	93.7				% Passing			07/01/20 21:38	1
Sieve Size #60 - Percent Finer	81.1				% Passing			07/01/20 21:38	1
Sieve Size #80 - Percent Finer	77.0				% Passing			07/01/20 21:38	1
Sieve Size #100 - Percent Finer	73.8				% Passing			07/01/20 21:38	1
Sieve Size #200 - Percent Finer	67.6				% Passing			07/01/20 21:38	1
Hydrometer Reading 1 - Percent Finer	49.0				% Passing			07/01/20 21:38	1
Hydrometer Reading 2 - Percent Finer	46.1				% Passing			07/01/20 21:38	1
Hydrometer Reading 3 - Percent Finer	40.3				% Passing			07/01/20 21:38	1
Hydrometer Reading 4 - Percent Finer	33.7				% Passing			07/01/20 21:38	1
Hydrometer Reading 5 - Percent Finer	27.1				% Passing			07/01/20 21:38	1
Hydrometer Reading 6 - Percent Finer	20.6				% Passing			07/01/20 21:38	1
Hydrometer Reading 7 - Percent Finer	12.5				% Passing			07/01/20 21:38	1

7/10/2020

Client: Job Site Services Inc Job ID: 500-184289-1 Project/Site: Waukegan, IL

Client Sample ID: Trip Blank

Date Received: 06/30/20 15:20

Toluene-d8 (Surr)

Lab Sample ID: 500-184289-3 Date Collected: 06/30/20 00:00

Matrix: Water

Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	0.0055	J	0.010	0.0017	-			07/07/20 23:25	1
Benzene	<0.00015		0.00050	0.00015	mg/L			07/07/20 23:25	1
Bromodichloromethane	< 0.00037		0.0010	0.00037	mg/L			07/07/20 23:25	1
Bromoform	<0.00048		0.0010	0.00048	mg/L			07/07/20 23:25	1
Bromomethane	<0.00080		0.0030	0.00080	mg/L			07/07/20 23:25	1
Carbon disulfide	<0.00045		0.0020	0.00045	mg/L			07/07/20 23:25	1
Carbon tetrachloride	<0.00038		0.0010	0.00038	mg/L			07/07/20 23:25	1
Chlorobenzene	< 0.00039		0.0010	0.00039	mg/L			07/07/20 23:25	1
Chloroform	< 0.00037		0.0020	0.00037	mg/L			07/07/20 23:25	1
cis-1,2-Dichloroethene	<0.00041		0.0010	0.00041	mg/L			07/07/20 23:25	1
cis-1,3-Dichloropropene	< 0.00042		0.0010	0.00042	mg/L			07/07/20 23:25	1
Dibromochloromethane	< 0.00049		0.0010	0.00049	mg/L			07/07/20 23:25	1
1,2-Dibromo-3-Chloropropane	<0.0020		0.0050	0.0020	mg/L			07/07/20 23:25	1
1,2-Dibromoethane	<0.00039		0.0010	0.00039	mg/L			07/07/20 23:25	1
1,1-Dichloroethane	< 0.00041		0.0010	0.00041	mg/L			07/07/20 23:25	1
1,2-Dichloroethane	<0.00039		0.0010	0.00039	mg/L			07/07/20 23:25	1
1,1-Dichloroethene	<0.00039		0.0010	0.00039	mg/L			07/07/20 23:25	1
1,2-Dichloropropane	< 0.00043		0.0010	0.00043	mg/L			07/07/20 23:25	1
1,3-Dichloropropene, Total	<0.00042		0.0010	0.00042	mg/L			07/07/20 23:25	1
Ethylbenzene	<0.00018		0.00050	0.00018	mg/L			07/07/20 23:25	1
Methylene Chloride	<0.0016		0.0050	0.0016	mg/L			07/07/20 23:25	1
m&p-Xylene	<0.00018		0.0010	0.00018	mg/L			07/07/20 23:25	1
n-Butyl alcohol	< 0.053		0.13	0.053	mg/L			07/07/20 23:25	1
o-Xylene	<0.00022		0.00050	0.00022	mg/L			07/07/20 23:25	1
Styrene	<0.00039		0.0010	0.00039	mg/L			07/07/20 23:25	1
Tetrachloroethene	< 0.00037		0.0010	0.00037	mg/L			07/07/20 23:25	1
Toluene	< 0.00015		0.00050	0.00015	mg/L			07/07/20 23:25	1
trans-1,2-Dichloroethene	<0.00035		0.0010	0.00035	mg/L			07/07/20 23:25	1
trans-1,3-Dichloropropene	< 0.00036		0.0010	0.00036	mg/L			07/07/20 23:25	1
1,1,1-Trichloroethane	<0.00038		0.0010	0.00038	mg/L			07/07/20 23:25	1
1,1,2-Trichloroethane	<0.00035		0.0010	0.00035	mg/L			07/07/20 23:25	1
Trichloroethene	< 0.00016		0.00050	0.00016	mg/L			07/07/20 23:25	1
Vinyl acetate	<0.00091		0.0020	0.00091	mg/L			07/07/20 23:25	1
Vinyl chloride	<0.00020		0.0010	0.00020	mg/L			07/07/20 23:25	1
Xylenes, Total	<0.00022		0.0010	0.00022	mg/L			07/07/20 23:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		72 - 124			-		07/07/20 23:25	1
Dibromofluoromethane	109		75 - 120					07/07/20 23:25	1
1,2-Dichloroethane-d4 (Surr)	108		75 - 126					07/07/20 23:25	1
T /	· · · · · · · · · · · · · · · · · · ·							07/07/00 00 05	

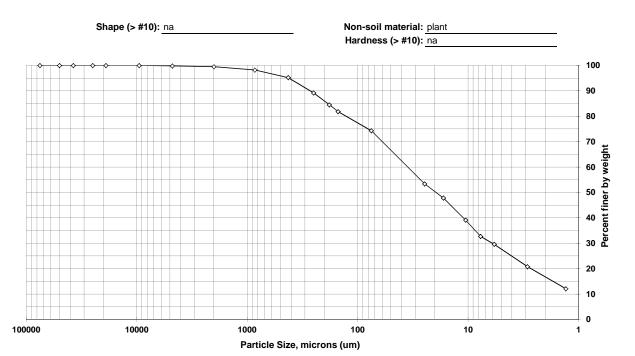
07/07/20 23:25

75 - 120

Particle Size of Soils by ASTM D422

 Sample ID:
 TS-1
 Percent Solids:
 82.4%
 Start Date:
 7/1/2020

 Lab ID:
 500-184289-F-1
 Specific Gravity:
 2.650
 End Date:
 7/8/2020



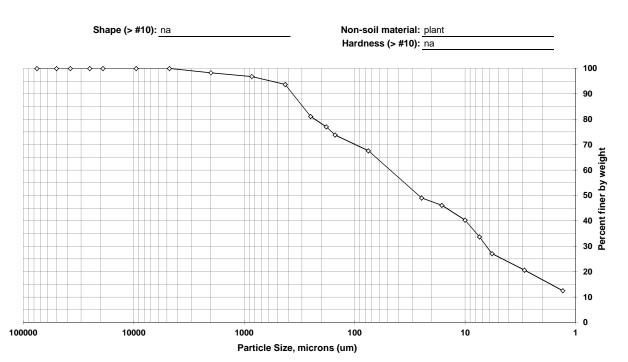
Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	99.8	0.2
#10	2000	99.5	0.3
#20	850	98.2	1.3
#40	425	95.2	3.0
#60	250	89.2	6.0
#80	180	84.5	4.7
#100	150	81.8	2.7
#200	75	74.3	7.5
Hyd1	24.7	53.4	20.9
Hyd2	16.7	47.8	5.6
Hyd3	10.5	39.1	8.7
Hyd4	7.7	32.7	6.4
Hyd5	5.8	29.6	3.1
Hyd6	2.9	20.8	8.8
Hyd7	1.3	12.1	8.7

0.1	D
Soil	Percent of
Classification	sample
Gravel	0.2
Sand	25.5
Coarse Sand	0.3
Medium Sand	4.3
Fine Sand	20.9
Silt	44.7
Clay	29.6

Particle Size of Soils by ASTM D422

 Sample ID:
 TS-2
 Percent Solids:
 82.2%
 Start Date:
 7/1/2020

 Lab ID:
 500-184289-F-2
 Specific Gravity:
 2.650
 End Date:
 7/8/2020



Sieve	Particle	Percent	Incremental
size	size, um	finer	percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	100.0	0.0
#10	2000	98.3	1.7
#20	850	96.8	1.5
#40	425	93.7	3.1
#60	250	81.1	12.6
#80	180	77.0	4.1
#100	150	73.8	3.2
#200	75	67.6	6.2
Hyd1	24.7	49.0	18.6
Hyd2	16.2	46.1	2.9
Hyd3	10	40.3	5.8
Hyd4	7.4	33.7	6.6
Hyd5	5.7	27.1	6.6
Hyd6	2.9	20.6	6.5
Hyd7	1.3	12.5	8.1

Soil	Percent of
Classification	sample
Gravel	0.0
Sand	32.4
Coarse Sand	1.7
Medium Sand	4.6
Fine Sand	26.1
Silt	40.5
Clay	27.1

TestAmerica Burlington

Sediment Grain Size - D422				
Client				
Client Sample ID	TS-1			
Lab Sample ID	500-18428	9-F-1		
Dry Weight Determination				
Tin Weight	1.0	5 g		
Wet Sample + Tin	23.4	6 g		
Dry Sample + Tin	19.5	2 g		
% Moisture	17.5	8 %		
Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g	g)
Sample Weight (Wet)	47.8	8 169.	84	121.96
Sample Weight (Oven Dried)				101
-				
Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g	g)
Sample >=#10				0.47
Sample <#10				101
% Passing #10				82.8

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample	% Finer C	lassification Sub Cla	ass
3 inch	75000			0.00 g	100.0 G	Gravel	
2 inch	50000			0.00 g	100.0 G	Gravel	
1.5 inch	37500			0.00 g	100.0 G	Gravel	
1 inch	25000			0.00 g	100.0 G	Gravel	
3/4 inch	19000			0.00 g	100.0 G	Gravel	
3/8 inch	9500			0.00 g	100.0 G	Gravel	
#4	4750	488.02	2 488.18	0.16 g	99.8 G	Gravel	
#10	2000	462.6	462.95	0.31 g	99.5 S	and Coars	e
#20	850	378.3	4 379.69	1.35 g	98.2 S	and Mediu	m
#40	425	366.67	7 369.67	3.00 g	95.2 S	and Mediu	m
#60	250	348.1	4 354.24	6.10 g	89.2 S	and Fine	
#80	180	337.9	342.68	4.73 g	84.5 S	and Fine	
#100	150	328.29	331.05	2.76 g	81.8 S	and Fine	
#200	75	312.8	4 320.39	7.55 g	74.3 S	and Fine	
				0.00 g	74.3		

Adjusted Hydrometer Sample Mass Hydrometer Sample Mass (g)

101

Silt/Clay Fraction (Hydrometer Test)

()	,							
					Particle Size			
Hydrometer Test Time (min)	Actual	Spe	c. Gravity	Temp C	(Micron)	% Finer	Classification	Sub Class
	2	2	1.036	5 20.5	24.7	5	3.4 Silt	
	5	5	1.0330	20.5	16.7	4	7.8 Silt	
	15	15	1.0275	20.5	10.5	3	9.1 Silt	
	30	31	1.0235	20.5	7.7	3:	2.7 Silt	
	60	59	1.0215	20.5	5.8	3 2	9.6 Silt	
	250	265	1.0160	20.5	2.9	2	0.8 Clay	
	1440	1412	1.0105	5 20.5	1.3	3 1:	2.1 Clay	







TestAmerica Burlington

Sediment Grain Size - D422			
Client			
Client Sample ID	TS-2		
Lab Sample ID	500-184289)-F-2	
Dry Weight Determination			
Tin Weight	1.03	3 g	
Wet Sample + Tin	23.94	l g	
Dry Sample + Tin	19.86	g g	
% Moisture	17.81	l %	
Sample Weights	Tare (g)	Pan+Samp (g)	Samp (g)
Sample Weight (Wet)	47.84	182.19	134.35
Sample Weight (Oven Dried)			110
Sample Split (oven dried)	Tare (g)	Pan+Samp (g)	Samp (g)
Sample >=#10			1.9
Sample <#10			108
% Passing #10			80.4

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare (g)	Pan+Sample (g)	Sample	% Finer	Classification	Sub Class
3 inch	75000			0.00 g	100.0	Gravel	
2 inch	50000			0.00 g	100.0	Gravel	
1.5 inch	37500			0.00 g	100.0	Gravel	
1 inch	25000			0.00 g	100.0	Gravel	
3/4 inch	19000			0.00 g	100.0	Gravel	
3/8 inch	9500			0.00 g	100.0	Gravel	
#4	4750			0.00 g	100.0	Gravel	
#10	2000	462.6	4 464.54	1.90 g	98.3	Sand	Coarse
#20	850	373.6	9 375.31	1.62 g	96.8	Sand	Medium
#40	425	362.1	7 365.58	3.41 g	93.7	' Sand	Medium
#60	250	352.1	7 366.08	3 13.91 g	81.1	Sand	Fine
#80	180	319.0	8 323.64	4.56 g	77.0	Sand	Fine
#100	150	328.5	2 332.07	3.55 g	73.8	Sand	Fine
#200	75	314.2	1 320.98	6.77 g	67.6	Sand	Fine
				0.00 g	67.6	5	

Adjusted Hydrometer Sample Mass Hydrometer Sample Mass (g) 110

Silt/Clay Fraction (Hydrometer Test)

ond onay i radiion (my aronno								
					Particle Size			
Hydrometer Test Time (min)	Actual	Spe	ec. Gravity	Temp C	(Micron)	% Finer	Classification	Sub Class
	2	2	1.0365	20.5	24.7	7	49 Silt	
	5	5	1.0345	20.5	16.2	2	46.1 Silt	
	15	15	1.0305	20.5	10)	40.3 Silt	
	30	32	1.0260	20.5	7.4	1	33.7 Silt	
	60	60	1.0215	20.5	5.7	7	27.1 Silt	
	250	259	1.0170	20.5	2.9)	20.6 Clay	
1	1440	1406	1.0115	20.5	1.3	3	12.5 Clay	













Definitions/Glossary

Client: Job Site Services Inc Job ID: 500-184289-1

Project/Site: Waukegan, IL

Qualifiers

GC/MS VOA

Qualifier **Qualifier Description**

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier **Qualifier Description**

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier **Qualifier Description**

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. J

Metals

Qualifier **Qualifier Description**

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

DL

EDL LOD

Abbreviation	These commonly used abbreviations may or may not be present in this report.						
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis						
%R	Percent Recovery						
CFL	Contains Free Liquid						
CFU	Colony Forming Unit						
CNF	Contains No Free Liquid						
DER	Duplicate Error Ratio (normalized absolute difference)						
Dil Fac	Dilution Factor						

DL, RA, RE, IN DLC Decision Level Concentration (Radiochemistry)

Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Limit of Detection (DoD/DOE)

Detection Limit (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE) MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry)

Estimated Detection Limit (Dioxin)

MDC Minimum Detectable Concentration (Radiochemistry) MDL Method Detection Limit

ML Minimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present PQL **Practical Quantitation Limit**

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) **TEQ**

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Definitions/Glossary

Client: Job Site Services Inc Job ID: 500-184289-1

Project/Site: Waukegan, IL

Glossary (Continued)

Abbreviation These commonly used abbreviations may or may not be present in this report.

TNTC Too Numerous To Count

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Q

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QC Association Summary

Client: Job Site Services Inc Project/Site: Waukegan, IL

GC/MS VOA

Prep Batch: 550457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	5035	
500-184289-2	TS-2	Total/NA	Solid	5035	

Analysis Batch: 550743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	8260B	550457
500-184289-2	TS-2	Total/NA	Solid	8260B	550457
MB 500-550743/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-550743/7	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 500-550743/18	Lab Control Sample Dup	Total/NA	Solid	8260B	

Analysis Batch: 551087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-3	Trip Blank	Total/NA	Water	8260B	
MB 500-551087/6	Method Blank	Total/NA	Water	8260B	
LCS 500-551087/4	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 550518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	3541	
500-184289-2	TS-2	Total/NA	Solid	3541	
MB 500-550518/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-550518/2-A	Lab Control Sample	Total/NA	Solid	3541	

Analysis Batch: 550625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	8270D	550518
500-184289-2	TS-2	Total/NA	Solid	8270D	550518

Analysis Batch: 550631

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-550518/1-A	Method Blank	Total/NA	Solid	8270D	550518
LCS 500-550518/2-A	Lab Control Sample	Total/NA	Solid	8270D	550518

GC Semi VOA

Prep Batch: 550695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	8151A	<u> </u>
500-184289-2	TS-2	Total/NA	Solid	8151A	
MB 500-550695/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 500-550695/2-A	Lab Control Sample	Total/NA	Solid	8151A	

Prep Batch: 550741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	3541	<u> </u>
500-184289-2	TS-2	Total/NA	Solid	3541	
MB 500-550741/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-550741/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-184289-1 MS	TS-1	Total/NA	Solid	3541	

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Job ID: 500-184289-1

QC Association Summary

Client: Job Site Services Inc Project/Site: Waukegan, IL Job ID: 500-184289-1

GC Semi VOA (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1 MSD	TS-1	Total/NA	Solid	3541	

Analysis Batch: 550881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	8151	550695
500-184289-2	TS-2	Total/NA	Solid	8151	550695
MB 500-550695/1-A	Method Blank	Total/NA	Solid	8151	550695
LCS 500-550695/2-A	Lab Control Sample	Total/NA	Solid	8151	550695

Analysis Batch: 550890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	8081B	550741
500-184289-2	TS-2	Total/NA	Solid	8081B	550741
MB 500-550741/1-A	Method Blank	Total/NA	Solid	8081B	550741
LCS 500-550741/2-A	Lab Control Sample	Total/NA	Solid	8081B	550741
500-184289-1 MS	TS-1	Total/NA	Solid	8081B	550741
500-184289-1 MSD	TS-1	Total/NA	Solid	8081B	550741

Prep Batch: 550938

Client Sample ID	Prep Type	Matrix	Method	Prep Batch
TS-1	Total/NA	Solid	3541	
TS-2	Total/NA	Solid	3541	
Method Blank	Total/NA	Solid	3541	
Lab Control Sample	Total/NA	Solid	3541	
TS-1	Total/NA	Solid	3541	
TS-1	Total/NA	Solid	3541	
	TS-1 TS-2 Method Blank Lab Control Sample TS-1	TS-1 Total/NA TS-2 Total/NA Method Blank Total/NA Lab Control Sample Total/NA TS-1 Total/NA	TS-1 Total/NA Solid TS-2 Total/NA Solid Method Blank Total/NA Solid Lab Control Sample Total/NA Solid TS-1 Total/NA Solid	TS-1 Total/NA Solid 3541 TS-2 Total/NA Solid 3541 Method Blank Total/NA Solid 3541 Lab Control Sample Total/NA Solid 3541 TS-1 Total/NA Solid 3541 Total/NA Solid 3541

Analysis Batch: 551052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	8082A	550938
500-184289-2	TS-2	Total/NA	Solid	8082A	550938
MB 500-550938/1-A	Method Blank	Total/NA	Solid	8082A	550938
LCS 500-550938/3-A	Lab Control Sample	Total/NA	Solid	8082A	550938
500-184289-1 MS	TS-1	Total/NA	Solid	8082A	550938
500-184289-1 MSD	TS-1	Total/NA	Solid	8082A	550938

Metals

Prep Batch: 550475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	3050B	
500-184289-2	TS-2	Total/NA	Solid	3050B	
MB 500-550475/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-550475/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 550540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	7471B	
500-184289-2	TS-2	Total/NA	Solid	7471B	
MB 500-550540/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-550540/13-A	Lab Control Sample	Total/NA	Solid	7471B	

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QC Association Summary

Client: Job Site Services Inc
Project/Site: Waukegan, IL

Job ID: 500-184289-1

Metals

Analysis Batch: 550705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	6010B	550475
500-184289-2	TS-2	Total/NA	Solid	6010B	550475
MB 500-550475/1-A	Method Blank	Total/NA	Solid	6010B	550475
LCS 500-550475/2-A	Lab Control Sample	Total/NA	Solid	6010B	550475

Analysis Batch: 550807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	7471B	550540
500-184289-2	TS-2	Total/NA	Solid	7471B	550540
MB 500-550540/12-A	Method Blank	Total/NA	Solid	7471B	550540
LCS 500-550540/13-A	Lab Control Sample	Total/NA	Solid	7471B	550540

General Chemistry

Leach Batch: 284212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Soluble	Solid	DI Leach	
500-184289-2	TS-2	Soluble	Solid	DI Leach	
500-184289-1 DU	TS-1	Soluble	Solid	DI Leach	

Analysis Batch: 284319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Soluble	Solid	9045D	284212
500-184289-2	TS-2	Soluble	Solid	9045D	284212
LCS 310-284319/1	Lab Control Sample	Total/NA	Solid	9045D	
500-184289-1 DU	TS-1	Soluble	Solid	9045D	284212

Analysis Batch: 550333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	Moisture	
500-184289-2	TS-2	Total/NA	Solid	Moisture	

Prep Batch: 550857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep Ba	atch
500-184289-1	TS-1	Total/NA	Solid	3060A	
500-184289-2	TS-2	Total/NA	Solid	3060A	
MB 500-550857/1-A	Method Blank	Total/NA	Solid	3060A	
LCS 500-550857/2-A	Lab Control Sample	Total/NA	Solid	3060A	
LCS 500-550857/3-A	Lab Control Sample	Total/NA	Solid	3060A	

Prep Batch: 550958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	9010B	-
500-184289-2	TS-2	Total/NA	Solid	9010B	
MB 500-550958/1-A	Method Blank	Total/NA	Solid	9010B	
LCS 500-550958/2-A	Lab Control Sample	Total/NA	Solid	9010B	
500-184289-1 MS	TS-1	Total/NA	Solid	9010B	
500-184289-1 MSD	TS-1	Total/NA	Solid	9010B	

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Client: Job Site Services Inc Job ID: 500-184289-1

Project/Site: Waukegan, IL

General Chemistry

Prep Batch: 551086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	300_Prep	
500-184289-2	TS-2	Total/NA	Solid	300_Prep	
MB 500-551086/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 500-551086/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
500-184289-1 MS	TS-1	Total/NA	Solid	300_Prep	
500-184289-1 MSD	TS-1	Total/NA	Solid	300_Prep	

Analysis Batch: 551111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	9056A	551086
500-184289-2	TS-2	Total/NA	Solid	9056A	551086
MB 500-551086/1-A	Method Blank	Total/NA	Solid	9056A	551086
LCS 500-551086/2-A	Lab Control Sample	Total/NA	Solid	9056A	551086
500-184289-1 MS	TS-1	Total/NA	Solid	9056A	551086
500-184289-1 MSD	TS-1	Total/NA	Solid	9056A	551086

Analysis Batch: 551290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	9014	550958
500-184289-2	TS-2	Total/NA	Solid	9014	550958
MB 500-550958/1-A	Method Blank	Total/NA	Solid	9014	550958
LCS 500-550958/2-A	Lab Control Sample	Total/NA	Solid	9014	550958
500-184289-1 MS	TS-1	Total/NA	Solid	9014	550958
500-184289-1 MSD	TS-1	Total/NA	Solid	9014	550958

Analysis Batch: 551655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	9014	550958
500-184289-2	TS-2	Total/NA	Solid	9014	550958

Analysis Batch: 551660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	7196A	550857
500-184289-2	TS-2	Total/NA	Solid	7196A	550857
MB 500-550857/1-A	Method Blank	Total/NA	Solid	7196A	550857
LCS 500-550857/2-A	Lab Control Sample	Total/NA	Solid	7196A	550857
LCS 500-550857/3-A	Lab Control Sample	Total/NA	Solid	7196A	550857

Analysis Batch: 551662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	7196A	
500-184289-2	TS-2	Total/NA	Solid	7196A	

Geotechnical

Analysis Batch: 156598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-184289-1	TS-1	Total/NA	Solid	D422	
500-184289-2	TS-2	Total/NA	Solid	D422	

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Job ID: 500-184289-1

Client: Job Site Services Inc Project/Site: Waukegan, IL

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid Prep Type: Total/NA

			Pe	ercent Surre	ogate Reco
		BFB	DBFM	DCA	TOL
Lab Sample ID	Client Sample ID	(75-131)	(75-126)	(70-134)	(75-124)
500-184289-1	TS-1	111	94	103	99
500-184289-2	TS-2	111	97	105	99
LCS 500-550743/7	Lab Control Sample	101	95	96	99
LCSD 500-550743/18	Lab Control Sample Dup	102	94	101	100
MB 500-550743/6	Method Blank	109	94	99	98
Surrogate Legend					

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

			Pe	ercent Surre	ogate Rec
		BFB	DBFM	DCA	TOL
Lab Sample ID	Client Sample ID	(72-124)	(75-120)	(75-126)	(75-120)
500-184289-3	Trip Blank	95	109	108	95
LCS 500-551087/4	Lab Control Sample	97	107	103	96
MB 500-551087/6	Method Blank	98	106	106	99

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)								
		FBP	2FP	NBZ	PHL	TPHL	TBP			
Lab Sample ID	Client Sample ID	(43-145)	(31-166)	(37-147)	(30-153)	(42-157)	(31-143)			
500-184289-1	TS-1	83	79	66	81	104	71			
500-184289-2	TS-2	85	78	67	83	106	70			
LCS 500-550518/2-A	Lab Control Sample	118	97	100	108	114	109			
MB 500-550518/1-A	Method Blank	104	86	103	98	122	91			

Surrogate Legend

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol

NBZ = Nitrobenzene-d5

PHL = Phenol-d5

TPHL = Terphenyl-d14

TBP = 2,4,6-Tribromophenol

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Client: Job Site Services Inc Job ID: 500-184289-1

Project/Site: Waukegan, IL

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

•			Perc	ent Surrogate Rec
		DCBP2	TCX2	
Lab Sample ID	Client Sample ID	(33-148)	(30-121)	
500-184289-1	TS-1	92	78	
500-184289-1 MS	TS-1	89	64	
500-184289-1 MSD	TS-1	82	59	
500-184289-2	TS-2	113	39	
LCS 500-550741/2-A	Lab Control Sample	96	77	
MB 500-550741/1-A	Method Blank	97	76	
Surrogate Legend				
DCBP = DCB Decach	lorobiphenyl			-
TCX = Tetrachloro-m-	xylene			

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid Prep Type: Total/NA

			Percent	Surrogate Recovery (Acceptance Limits)
		TCX1	DCBP1	
Lab Sample ID	Client Sample ID	(49-129)	(37-121)	
500-184289-1	TS-1	75	96	
500-184289-1 MS	TS-1	80	106	
500-184289-1 MSD	TS-1	83	100	
500-184289-2	TS-2	88	111	
LCS 500-550938/3-A	Lab Control Sample	82	94	
MB 500-550938/1-A	Method Blank	75	87	

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Method: 8151 - Herbicides

Matrix: Solid Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)
		DCPAA1	
Lab Sample ID	Client Sample ID	(25-120)	
500-184289-1	TS-1	40	
500-184289-2	TS-2	49	
LCS 500-550695/2-A	Lab Control Sample	55	
MB 500-550695/1-A	Method Blank	52	
Surrogate Legend			
DCPAA = DCAA			

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Client: Job Site Services Inc Job ID: 500-184289-1 Project/Site: Waukegan, IL

Method: 8260B - Volatile Organic Compounds (GC/MS)

MB MB

Lab Sample ID: MB 500-550743/6

Matrix: Solid

Analysis Batch: 550743

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0087		0.020	0.0087	mg/Kg			07/06/20 10:44	1
Benzene	<0.00051		0.0020	0.00051	mg/Kg			07/06/20 10:44	1
Bromodichloromethane	<0.00041		0.0020	0.00041	mg/Kg			07/06/20 10:44	1
Bromoform	<0.00058		0.0020	0.00058	mg/Kg			07/06/20 10:44	1
Bromomethane	<0.0019		0.0050	0.0019	mg/Kg			07/06/20 10:44	1
Carbon disulfide	<0.0010		0.0050	0.0010	mg/Kg			07/06/20 10:44	1
Carbon tetrachloride	<0.00058		0.0020	0.00058	mg/Kg			07/06/20 10:44	1
Chlorobenzene	<0.00074		0.0020	0.00074	mg/Kg			07/06/20 10:44	1
Chloroform	<0.00069		0.0020	0.00069	mg/Kg			07/06/20 10:44	1
cis-1,2-Dichloroethene	<0.00056		0.0020	0.00056	mg/Kg			07/06/20 10:44	1
Dibromochloromethane	<0.00065		0.0020	0.00065	mg/Kg			07/06/20 10:44	1
1,2-Dibromo-3-Chloropropane	<0.0020		0.0050	0.0020	mg/Kg			07/06/20 10:44	1
1,2-Dibromoethane	<0.00076		0.0020	0.00076	mg/Kg			07/06/20 10:44	1
1,1-Dichloroethane	<0.00069		0.0020	0.00069	mg/Kg			07/06/20 10:44	1
1,2-Dichloroethane	<0.0016		0.0050	0.0016	mg/Kg			07/06/20 10:44	1
1,1-Dichloroethene	<0.00069		0.0020	0.00069	mg/Kg			07/06/20 10:44	1
1,2-Dichloropropane	<0.00052		0.0020	0.00052	mg/Kg			07/06/20 10:44	1
1,3-Dichloropropene, Total	<0.00070		0.0020	0.00070	mg/Kg			07/06/20 10:44	1
Ethylbenzene	<0.00096		0.0020	0.00096	mg/Kg			07/06/20 10:44	1
Methylene Chloride	<0.0020		0.0050	0.0020	mg/Kg			07/06/20 10:44	1
m&p-Xylene	< 0.00063		0.0040	0.00063	mg/Kg			07/06/20 10:44	1
o-Xylene	<0.00064		0.0020	0.00064	mg/Kg			07/06/20 10:44	1
Styrene	<0.00060		0.0020	0.00060	mg/Kg			07/06/20 10:44	1
Tetrachloroethene	<0.00068		0.0020	0.00068	mg/Kg			07/06/20 10:44	1
Toluene	<0.00051		0.0020	0.00051	mg/Kg			07/06/20 10:44	1
trans-1,2-Dichloroethene	<0.00089		0.0020	0.00089	mg/Kg			07/06/20 10:44	1
1,1,1-Trichloroethane	< 0.00067		0.0020	0.00067	mg/Kg			07/06/20 10:44	1
1,1,2-Trichloroethane	<0.00086		0.0020	0.00086	mg/Kg			07/06/20 10:44	1
Trichloroethene	<0.00068		0.0020	0.00068	mg/Kg			07/06/20 10:44	1
Vinyl acetate	< 0.0017		0.0050	0.0017	mg/Kg			07/06/20 10:44	1
Vinyl chloride	<0.00089		0.0020	0.00089				07/06/20 10:44	1
n-Butyl alcohol	< 0.063		0.13	0.063	mg/Kg			07/06/20 10:44	1
Xylenes, Total	<0.00064		0.0040	0.00064				07/06/20 10:44	1

	MB MB					
Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	109	75 - 131		7/06/20 10:44	1	
Dibromofluoromethane	94	75 - 126	C	7/06/20 10:44	1	
1,2-Dichloroethane-d4 (Surr)	99	70 - 134	C	7/06/20 10:44	1	
Toluene-d8 (Surr)	98	75 - 124	C	7/06/20 10:44	1	

Lab Sample ID: LCS 500-550743/7

Matrix: Solid

Analysis Batch: 550743

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acetone	0.0500	0.0505		mg/Kg	_	101	40 - 150
Benzene	0.0500	0.0447		mg/Kg		89	70 - 125
Bromodichloromethane	0.0500	0.0471		mg/Kg		94	67 - 129

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Client Sample ID: Lab Control Sample

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Prep Type: Total/NA

Client: Job Site Services Inc

Project/Site: Waukegan, IL

Job ID: 500-184289-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-550743/7

Matrix: Solid

Analysis Batch: 550743

Client Sample ID: Lab Control Sample Prep Type: Total/NA

7 manyono Batom Goot to	Spike	LCS LCS				%Rec.	
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	
Bromoform	0.0500	0.0443	mg/Kg		89	68 - 136	
Bromomethane	0.0500	0.0479	mg/Kg		96	70 - 130	
Carbon disulfide	0.0500	0.0471	mg/Kg		94	70 - 129	
Carbon tetrachloride	0.0500	0.0496	mg/Kg		99	75 - 125	
Chlorobenzene	0.0500	0.0468	mg/Kg		94	50 ₋ 150	
Chloroform	0.0500	0.0471	mg/Kg		94	57 ₋ 135	
cis-1,2-Dichloroethene	0.0500	0.0461	mg/Kg		92	70 - 125	
Dibromochloromethane	0.0500	0.0472	mg/Kg		94	69 - 125	
1,2-Dibromo-3-Chloropropane	0.0500	0.0519	mg/Kg		104	60 - 136	
1,2-Dibromoethane	0.0500	0.0453	mg/Kg		91	70 - 125	
1,1-Dichloroethane	0.0500	0.0460	mg/Kg		92	70 - 125	
1,2-Dichloroethane	0.0500	0.0477	mg/Kg		95	70 - 130	
1,1-Dichloroethene	0.0500	0.0481	mg/Kg		96	70 - 120	
1,2-Dichloropropane	0.0500	0.0423	mg/Kg		85	70 - 125	
Ethylbenzene	0.0500	0.0461	mg/Kg		92	61 - 136	
Methylene Chloride	0.0500	0.0460	mg/Kg		92	70 - 126	
Styrene	0.0500	0.0474	mg/Kg		95	70 - 125	
Tetrachloroethene	0.0500	0.0477	mg/Kg		95	70 - 124	
Toluene	0.0500	0.0472	mg/Kg		94	70 - 125	
trans-1,2-Dichloroethene	0.0500	0.0481	mg/Kg		96	70 - 125	
1,1,1-Trichloroethane	0.0500	0.0489	mg/Kg		98	70 - 128	
1,1,2-Trichloroethane	0.0500	0.0461	mg/Kg		92	70 - 125	
Trichloroethene	0.0500	0.0463	mg/Kg		93	70 - 125	
Vinyl acetate	0.0500	0.0364	mg/Kg		73	40 - 153	
Vinyl chloride	0.0500	0.0509	mg/Kg		102	70 - 125	

0.100

0.0998

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		75 - 131
Dibromofluoromethane	95		75 - 126
1,2-Dichloroethane-d4 (Surr)	96		70 - 134
Toluene-d8 (Surr)	99		75 - 124

Lab Sample ID: LCSD 500-550743/18

Matrix: Solid

Xylenes, Total

Analysis Batch: 550743

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

100

mg/Kg

53 - 147

•	Spike	LCSD LCSD				%Rec.		RPD
Analyte	Added	Result Qualifie	r Unit	D	%Rec	Limits	RPD	Limit
Acetone	0.0500	0.0550	mg/Kg		110	40 - 150	9	30
Benzene	0.0500	0.0437	mg/Kg		87	70 - 125	2	30
Bromodichloromethane	0.0500	0.0478	mg/Kg		96	67 - 129	1	30
Bromoform	0.0500	0.0480	mg/Kg		96	68 - 136	8	30
Bromomethane	0.0500	0.0502	mg/Kg		100	70 - 130	5	30
Carbon disulfide	0.0500	0.0448	mg/Kg		90	70 - 129	5	30
Carbon tetrachloride	0.0500	0.0475	mg/Kg		95	75 - 125	4	30
Chlorobenzene	0.0500	0.0462	mg/Kg		92	50 - 150	1	30
Chloroform	0.0500	0.0459	mg/Kg		92	57 ₋ 135	3	30
cis-1,2-Dichloroethene	0.0500	0.0441	mg/Kg		88	70 - 125	4	30

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4 4

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Client: Job Site Services Inc Job ID: 500-184289-1 Project/Site: Waukegan, IL

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 500-550743/18

Matrix: Solid

Analysis Batch: 550743

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

7 maryolo Batom 600740									
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Dibromochloromethane	0.0500	0.0501		mg/Kg		100	69 - 125	6	30
1,2-Dibromo-3-Chloropropane	0.0500	0.0620		mg/Kg		124	60 - 136	18	30
1,2-Dibromoethane	0.0500	0.0490		mg/Kg		98	70 - 125	8	30
1,1-Dichloroethane	0.0500	0.0443		mg/Kg		89	70 - 125	4	30
1,2-Dichloroethane	0.0500	0.0489		mg/Kg		98	70 - 130	2	30
1,1-Dichloroethene	0.0500	0.0457		mg/Kg		91	70 - 120	5	30
1,2-Dichloropropane	0.0500	0.0424		mg/Kg		85	70 - 125	0	30
Ethylbenzene	0.0500	0.0459		mg/Kg		92	61 - 136	1	30
Methylene Chloride	0.0500	0.0443		mg/Kg		89	70 - 126	4	30
Styrene	0.0500	0.0473		mg/Kg		95	70 - 125	0	30
Tetrachloroethene	0.0500	0.0465		mg/Kg		93	70 - 124	2	30
Toluene	0.0500	0.0464		mg/Kg		93	70 - 125	2	30
trans-1,2-Dichloroethene	0.0500	0.0457		mg/Kg		91	70 - 125	5	30
1,1,1-Trichloroethane	0.0500	0.0487		mg/Kg		97	70 - 128	0	30
1,1,2-Trichloroethane	0.0500	0.0492		mg/Kg		98	70 - 125	6	30
Trichloroethene	0.0500	0.0444		mg/Kg		89	70 - 125	4	30
Vinyl acetate	0.0500	0.0384		mg/Kg		77	40 - 153	5	30
Vinyl chloride	0.0500	0.0519		mg/Kg		104	70 - 125	2	30
Xylenes, Total	0.100	0.0976		mg/Kg		98	53 - 147	2	30

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		75 - 131
Dibromofluoromethane	94		75 - 126
1,2-Dichloroethane-d4 (Surr)	101		70 - 134
Toluene-d8 (Surr)	100		75 - 124

Lab Sample ID: MB 500-551087/6

Matrix: Water

Analysis Batch: 551087

Client Sample ID: Method Blank

Prep Type: Total/NA

MB MB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.0017		0.010	0.0017	mg/L			07/07/20 22:59	1
Benzene	<0.00015		0.00050	0.00015	mg/L			07/07/20 22:59	1
Bromodichloromethane	<0.00037		0.0010	0.00037	mg/L			07/07/20 22:59	1
Bromoform	<0.00048		0.0010	0.00048	mg/L			07/07/20 22:59	1
Bromomethane	<0.00080		0.0030	0.00080	mg/L			07/07/20 22:59	1
Carbon disulfide	<0.00045		0.0020	0.00045	mg/L			07/07/20 22:59	1
Carbon tetrachloride	<0.00038		0.0010	0.00038	mg/L			07/07/20 22:59	1
Chlorobenzene	<0.00039		0.0010	0.00039	mg/L			07/07/20 22:59	1
Chloroform	<0.00037		0.0020	0.00037	mg/L			07/07/20 22:59	1
cis-1,2-Dichloroethene	<0.00041		0.0010	0.00041	mg/L			07/07/20 22:59	1
cis-1,3-Dichloropropene	<0.00042		0.0010	0.00042	mg/L			07/07/20 22:59	1
Dibromochloromethane	<0.00049		0.0010	0.00049	mg/L			07/07/20 22:59	1
1,2-Dibromo-3-Chloropropane	<0.0020		0.0050	0.0020	mg/L			07/07/20 22:59	1
1,2-Dibromoethane	<0.00039		0.0010	0.00039	mg/L			07/07/20 22:59	1
1,1-Dichloroethane	<0.00041		0.0010	0.00041	mg/L			07/07/20 22:59	1
1,2-Dichloroethane	<0.00039		0.0010	0.00039	mg/L			07/07/20 22:59	1
1,1-Dichloroethene	<0.00039		0.0010	0.00039	mg/L			07/07/20 22:59	1

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Client: Job Site Services Inc Job ID: 500-184289-1 Project/Site: Waukegan, IL

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-551087/6 **Matrix: Water**

Analysis Batch: 551087

Client Sample ID: Method Blank

Prep Type: Total/NA

MB MB MDL Unit Dil Fac Analyte Result Qualifier RL Prepared Analyzed 1,2-Dichloropropane < 0.00043 0.0010 0.00043 mg/L 07/07/20 22:59 1,3-Dichloropropene, Total < 0.00042 0.0010 0.00042 mg/L 07/07/20 22:59 Ethylbenzene <0.00018 0.00050 0.00018 mg/L 07/07/20 22:59 Methylene Chloride 0.0050 0.0016 mg/L 07/07/20 22:59 <0.0016 m&p-Xylene <0.00018 0.0010 0.00018 mg/L 07/07/20 22:59 o-Xylene 0.00050 0.00022 mg/L <0.00022 07/07/20 22:59 Styrene 0.0010 0.00039 mg/L 07/07/20 22:59 < 0.00039 Tetrachloroethene < 0.00037 0.0010 0.00037 mg/L 07/07/20 22:59 Toluene < 0.00015 0.00050 0.00015 mg/L 07/07/20 22:59 trans-1,2-Dichloroethene <0.00035 0.0010 0.00035 mg/L 07/07/20 22:59 trans-1,3-Dichloropropene < 0.00036 0.0010 0.00036 mg/L 07/07/20 22:59 1,1,1-Trichloroethane 0.0010 0.00038 mg/L 07/07/20 22:59 <0.00038 1,1,2-Trichloroethane 0.00035 mg/L < 0.00035 0.0010 07/07/20 22:59 Trichloroethene 0.00050 0.00016 mg/L < 0.00016 07/07/20 22:59 0.00091 mg/L Vinyl acetate < 0.00091 0.0020 07/07/20 22:59 Vinyl chloride < 0.00020 0.0010 0.00020 mg/L 07/07/20 22:59 n-Butyl alcohol 0.053 mg/L 07/07/20 22:59 < 0.053 0.13 Xylenes, Total <0.00022 0.0010 0.00022 mg/L 07/07/20 22:59

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		72 - 124		07/07/20 22:59	1
Dibromofluoromethane	106		75 - 120		07/07/20 22:59	1
1,2-Dichloroethane-d4 (Surr)	106		75 - 126		07/07/20 22:59	1
Toluene-d8 (Surr)	99		75 - 120		07/07/20 22:59	1

Lab Sample ID: LCS 500-551087/4

Matrix: Water

Analysis Batch: 551087

Client Sample ID	: Lab Control Sample
	Prep Type: Total/NA

Alialysis Dalcii. 55 1001								
	Spike	LCS L	_CS				%Rec.	
Analyte	Added	Result C	Qualifier	Unit	D	%Rec	Limits	
Acetone	0.0500	0.0533		mg/L		107	40 - 143	
Benzene	0.0500	0.0493		mg/L		99	70 - 120	
Bromodichloromethane	0.0500	0.0482		mg/L		96	69 - 120	
Bromoform	0.0500	0.0517		mg/L		103	56 - 132	
Bromomethane	0.0500	0.0517		mg/L		103	40 - 152	
Carbon disulfide	0.0500	0.0478		mg/L		96	66 - 120	
Carbon tetrachloride	0.0500	0.0541		mg/L		108	59 - 133	
Chlorobenzene	0.0500	0.0509		mg/L		102	70 - 120	
Chloroform	0.0500	0.0501		mg/L		100	70 - 120	
cis-1,2-Dichloroethene	0.0500	0.0511		mg/L		102	70 - 125	
cis-1,3-Dichloropropene	0.0500	0.0436		mg/L		87	64 - 127	
Dibromochloromethane	0.0500	0.0482		mg/L		96	68 - 125	
1,2-Dibromo-3-Chloropropane	0.0500	0.0411		mg/L		82	56 - 123	
1,2-Dibromoethane	0.0500	0.0481		mg/L		96	70 - 125	
1,1-Dichloroethane	0.0500	0.0476		mg/L		95	70 - 125	
1,2-Dichloroethane	0.0500	0.0507		mg/L		101	68 - 127	
1,1-Dichloroethene	0.0500	0.0518		mg/L		104	67 - 122	
1,2-Dichloropropane	0.0500	0.0475		mg/L		95	67 - 130	
• •				-				

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Client: Job Site Services Inc Job ID: 500-184289-1 Project/Site: Waukegan, IL

100 100

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-551087/4

Matrix: Water

Analysis Batch: 551087

Client Sample ID: Lab Control Sample

Prep Type: Total/NA 0/ D - -

	Spike	LCS LCS			%Rec.	
Analyte	Added	Result Qualifie	r Unit	D %Rec	Limits	
Ethylbenzene	0.0500	0.0485	mg/L	97	70 - 123	
Methylene Chloride	0.0500	0.0511	mg/L	102	69 - 125	
Styrene	0.0500	0.0528	mg/L	106	70 - 120	
Tetrachloroethene	0.0500	0.0530	mg/L	106	70 - 128	
Toluene	0.0500	0.0465	mg/L	93	70 - 125	
trans-1,2-Dichloroethene	0.0500	0.0517	mg/L	103	70 - 125	
trans-1,3-Dichloropropene	0.0500	0.0455	mg/L	91	62 - 128	
1,1,1-Trichloroethane	0.0500	0.0535	mg/L	107	70 - 125	
1,1,2-Trichloroethane	0.0500	0.0463	mg/L	93	71 - 130	
Trichloroethene	0.0500	0.0592	mg/L	118	70 - 125	
Vinyl acetate	0.0500	0.0608	mg/L	122	43 - 133	
Vinyl chloride	0.0500	0.0483	mg/L	97	64 - 126	
Xylenes, Total	0.100	0.0927	mg/L	93	70 - 125	

0...:

LCS LCS

%Recovery	Qualifier	Limits
97		72 - 124
107		75 - 120
103		75 - 126
96		75 - 120
	97 107 103	107 103

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-550518/1-A

Matrix: Solid

Analysis Batch: 550631

Client Sample ID: Method Blank Prep Type: Total/NA **Prep Batch: 550518**

MB MB Result Qualifier RL **MDL** Unit D Prepared **Analyte** Analyzed Dil Fac 0.0060 mg/Kg Acenaphthene <0.0060 0.033 07/02/20 08:20 07/02/20 23:04 07/02/20 08:20 07/02/20 23:04 Anthracene < 0.0056 0.033 0.0056 mg/Kg 1 Benzo[a]anthracene < 0.0045 0.033 0.0045 mg/Kg 07/02/20 08:20 07/02/20 23:04 Benzo[a]pyrene < 0.0064 0.033 0.0064 mg/Kg 07/02/20 08:20 07/02/20 23:04 Benzo[b]fluoranthene 0.0072 mg/Kg 07/02/20 08:20 07/02/20 23:04 <0.0072 0.033 Benzoic acid 0.33 mg/Kg 07/02/20 08:20 07/02/20 23:04 < 0.33 1.7 Benzo[k]fluoranthene 0.033 0.0098 mg/Kg 07/02/20 08:20 07/02/20 23:04 <0.0098 Bis(2-chloroethyl)ether < 0.050 0.17 0.050 mg/Kg 07/02/20 08:20 07/02/20 23:04 07/02/20 08:20 07/02/20 23:04 Bis(2-ethylhexyl) phthalate < 0.061 0.17 0.061 mg/Kg Butyl benzyl phthalate < 0.063 0.17 0.063 mg/Kg 07/02/20 08:20 07/02/20 23:04 Carbazole <0.083 0.17 0.083 mg/Kg 07/02/20 08:20 07/02/20 23:04 Carbofuran < 0.077 0.67 0.077 mg/Kg 07/02/20 08:20 07/02/20 23:04 4-Chloroaniline < 0.16 0.67 0.16 mg/Kg 07/02/20 08:20 07/02/20 23:04 07/02/20 08:20 07/02/20 23:04 2-Chlorophenol < 0.057 0.17 0.057 mg/Kg 07/02/20 08:20 07/02/20 23:04 Chrysene <0.0091 0.033 0.0091 mg/Kg 0.033 Dibenz(a,h)anthracene <0.0064 0.0064 mg/Kg 07/02/20 08:20 07/02/20 23:04 1,2-Dichlorobenzene < 0.040 0.17 0.040 mg/Kg 07/02/20 08:20 07/02/20 23:04 1.4-Dichlorobenzene < 0.043 0.17 0.043 mg/Kg 07/02/20 08:20 07/02/20 23:04 3,3'-Dichlorobenzidine 0.17 0.047 mg/Kg 07/02/20 08:20 07/02/20 23:04 < 0.047 07/02/20 08:20 07/02/20 23:04 2,4-Dichlorophenol < 0.079 0.33 0.079 mg/Kg Diethyl phthalate < 0.056 0.17 0.056 mg/Kg 07/02/20 08:20 07/02/20 23:04 0.33 07/02/20 08:20 07/02/20 23:04 2,4-Dimethylphenol < 0.13 0.13 mg/Kg

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Client: Job Site Services Inc Job ID: 500-184289-1

Project/Site: Waukegan, IL

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-550518/1-A

Matrix: Solid

Analysis Batch: 550631

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 550518

Analysis Baton, 000001								r rep Batem.	500010
		MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	<0.051		0.17	0.051	mg/Kg		07/02/20 08:20	07/02/20 23:04	
2,4-Dinitrophenol	<0.59		0.67	0.59	mg/Kg		07/02/20 08:20	07/02/20 23:04	•
2,4-Dinitrotoluene	<0.053		0.17	0.053	mg/Kg		07/02/20 08:20	07/02/20 23:04	
2,6-Dinitrotoluene	<0.065		0.17	0.065	mg/Kg		07/02/20 08:20	07/02/20 23:04	
Di-n-octyl phthalate	<0.054		0.17	0.054	mg/Kg		07/02/20 08:20	07/02/20 23:04	1
Fluoranthene	<0.0062		0.033	0.0062	mg/Kg		07/02/20 08:20	07/02/20 23:04	
Fluorene	<0.0047		0.033	0.0047	mg/Kg		07/02/20 08:20	07/02/20 23:04	1
Hexachlorobenzene	<0.0077		0.067	0.0077	mg/Kg		07/02/20 08:20	07/02/20 23:04	1
Hexachlorocyclopentadiene	<0.19		0.67	0.19	mg/Kg		07/02/20 08:20	07/02/20 23:04	
Hexachloroethane	<0.051		0.17	0.051	mg/Kg		07/02/20 08:20	07/02/20 23:04	•
Indeno[1,2,3-cd]pyrene	<0.0086		0.033	0.0086	mg/Kg		07/02/20 08:20	07/02/20 23:04	-
Isophorone	<0.037		0.17	0.037	mg/Kg		07/02/20 08:20	07/02/20 23:04	•
2-Methylphenol	<0.053		0.17	0.053	mg/Kg		07/02/20 08:20	07/02/20 23:04	1
Naphthalene	< 0.0051		0.033	0.0051	mg/Kg		07/02/20 08:20	07/02/20 23:04	1
Nitrobenzene	<0.0083		0.033	0.0083	mg/Kg		07/02/20 08:20	07/02/20 23:04	1
N-Nitrosodi-n-propylamine	<0.041		0.067	0.041	mg/Kg		07/02/20 08:20	07/02/20 23:04	1
N-Nitrosodiphenylamine	<0.039		0.17	0.039	mg/Kg		07/02/20 08:20	07/02/20 23:04	•
Phenol	<0.074		0.17	0.074	mg/Kg		07/02/20 08:20	07/02/20 23:04	1
Pyrene	<0.0066		0.033	0.0066	mg/Kg		07/02/20 08:20	07/02/20 23:04	
1,2,4-Trichlorobenzene	< 0.036		0.17	0.036	mg/Kg		07/02/20 08:20	07/02/20 23:04	1
2,4,5-Trichlorophenol	<0.076		0.33	0.076	mg/Kg		07/02/20 08:20	07/02/20 23:04	
2,4,6-Trichlorophenol	<0.11		0.33	0.11	mg/Kg		07/02/20 08:20	07/02/20 23:04	

MB MB %Recovery Surrogate Qualifier Limits Prepared Analyzed Dil Fac 2-Fluorobiphenyl 104 43 - 145 07/02/20 08:20 07/02/20 23:04 2-Fluorophenol 86 31 - 166 07/02/20 08:20 07/02/20 23:04 Nitrobenzene-d5 103 37 - 147 07/02/20 08:20 07/02/20 23:04 30 - 153 Phenol-d5 98 07/02/20 08:20 07/02/20 23:04 Terphenyl-d14 122 42 - 157 07/02/20 08:20 07/02/20 23:04 2,4,6-Tribromophenol 31 - 143 07/02/20 08:20 07/02/20 23:04 91

Lab Sample ID: LCS 500-550518/2-A

Matrix: Solid

Analysis Batch: 550631

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 550518

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthene	1.33	1.29		mg/Kg		97	65 - 124	
Anthracene	1.33	1.30		mg/Kg		97	70 - 114	
Benzo[a]anthracene	1.33	1.21		mg/Kg		91	67 - 122	
Benzo[a]pyrene	1.33	1.28		mg/Kg		96	65 - 133	
Benzo[b]fluoranthene	1.33	1.30		mg/Kg		97	69 - 129	
Benzoic acid	2.67	2.13		mg/Kg		80	10 - 100	
Benzo[k]fluoranthene	1.33	1.24		mg/Kg		93	68 - 127	
Bis(2-chloroethyl)ether	1.33	1.12		mg/Kg		84	55 - 111	
Bis(2-ethylhexyl) phthalate	1.33	1.39		mg/Kg		104	72 - 131	
Butyl benzyl phthalate	1.33	1.35		mg/Kg		101	71 - 129	
Carbazole	1.33	1.36		mg/Kg		102	65 - 142	
4-Chloroaniline	1.33	0.825		mg/Kg		62	30 - 150	

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Job ID: 500-184289-1

Client: Job Site Services Inc Project/Site: Waukegan, IL

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-550518/2-A

Matrix: Solid

Analysis Batch: 550631

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 550518

Allalysis Datell. 550051	Spike	LCS	LCS				%Rec.
Analyte	Added		Qualifier	Unit	D	%Rec	Limits
2-Chlorophenol	1.33	1.25		mg/Kg		94	64 - 110
Chrysene	1.33	1.29		mg/Kg		97	63 - 120
Dibenz(a,h)anthracene	1.33	1.30		mg/Kg		97	64 - 131
1,2-Dichlorobenzene	1.33	1.19		mg/Kg		89	62 - 110
1,4-Dichlorobenzene	1.33	1.16		mg/Kg		87	61 ₋ 110
3,3'-Dichlorobenzidine	1.33	0.763		mg/Kg		57	35 - 128
2,4-Dichlorophenol	1.33	1.10		mg/Kg		83	58 - 120
Diethyl phthalate	1.33	1.36		mg/Kg		102	58 ₋ 120
2,4-Dimethylphenol	1.33	1.14		mg/Kg		86	60 - 110
Di-n-butyl phthalate	1.33	1.36		mg/Kg		102	65 - 120
2,4-Dinitrophenol	2.67	1.35		mg/Kg		51	10 - 100
2,4-Dinitrotoluene	1.33	1.34		mg/Kg		100	69 - 124
2,6-Dinitrotoluene	1.33	1.28		mg/Kg		96	70 - 123
Di-n-octyl phthalate	1.33	1.35		mg/Kg		101	68 ₋ 134
Fluoranthene	1.33	1.33		mg/Kg		100	62 - 120
Fluorene	1.33	1.31		mg/Kg		98	62 - 120
Hexachlorobenzene	1.33	1.32		mg/Kg		99	63 - 124
Hexachlorocyclopentadiene	1.33	0.457	J	mg/Kg		34	10 - 133
Hexachloroethane	1.33	1.14		mg/Kg		86	60 - 114
Indeno[1,2,3-cd]pyrene	1.33	1.30		mg/Kg		97	68 ₋ 130
Isophorone	1.33	1.18		mg/Kg		88	55 ₋ 110
2-Methylphenol	1.33	1.20		mg/Kg		90	60 - 120
Naphthalene	1.33	1.15		mg/Kg		87	63 - 110
Nitrobenzene	1.33	1.16		mg/Kg		87	60 - 116
N-Nitrosodi-n-propylamine	1.33	1.42		mg/Kg		106	56 ₋ 118
N-Nitrosodiphenylamine	1.33	1.31		mg/Kg		98	65 - 112
Phenol	1.33	1.17		mg/Kg		88	56 - 122
Pyrene	1.33	1.31		mg/Kg		98	61 - 128
1,2,4-Trichlorobenzene	1.33	1.14		mg/Kg		86	66 - 117
2,4,5-Trichlorophenol	1.33	1.32		mg/Kg		99	50 ₋ 120
2,4,6-Trichlorophenol	1.33	1.27		mg/Kg		96	57 - 120

LCS LCS

MB MB

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	118		43 - 145
2-Fluorophenol	97		31 - 166
Nitrobenzene-d5	100		37 - 147
Phenol-d5	108		30 - 153
Terphenyl-d14	114		42 - 157
2,4,6-Tribromophenol	109		31 - 143

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 500-550741/1-A

Matrix: Solid

Analysis Batch: 550890

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 550741

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alachlor	<0.0059		0.017	0.0059	mg/Kg		07/06/20 07:28	07/07/20 06:51	1
Aldrin	<0.00069		0.0017	0.00069	mg/Kg		07/06/20 07:28	07/07/20 06:51	1

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Job ID: 500-184289-1

Client: Job Site Services Inc Project/Site: Waukegan, IL

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 500-550741/1-A

Matrix: Solid

Analysis Batch: 550890

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 550741

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-	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-BHC	<0.00042		0.0017	0.00042	mg/Kg		07/06/20 07:28	07/07/20 06:51	1
Atrazine	<0.035		0.17	0.035	mg/Kg		07/06/20 07:28	07/07/20 06:51	1
Chlordane (technical)	< 0.0033		0.0067	0.0033	mg/Kg		07/06/20 07:28	07/07/20 06:51	1
4,4'-DDD	< 0.00033		0.0017	0.00033	mg/Kg		07/06/20 07:28	07/07/20 06:51	1
4,4'-DDE	<0.00028		0.0017	0.00028	mg/Kg		07/06/20 07:28	07/07/20 06:51	1
4,4'-DDT	<0.00088		0.0017	0.00088	mg/Kg		07/06/20 07:28	07/07/20 06:51	1
Dieldrin	< 0.00023		0.0017	0.00023	mg/Kg		07/06/20 07:28	07/07/20 06:51	1
Endosulfan I	< 0.00073		0.0017	0.00073	mg/Kg		07/06/20 07:28	07/07/20 06:51	1
Endosulfan II	< 0.00027		0.0017	0.00027	mg/Kg		07/06/20 07:28	07/07/20 06:51	1
Endrin	< 0.00023		0.0017	0.00023	mg/Kg		07/06/20 07:28	07/07/20 06:51	1
gamma-BHC (Lindane)	<0.00036		0.0017	0.00036	mg/Kg		07/06/20 07:28	07/07/20 06:51	1
Heptachlor	< 0.00070		0.0017	0.00070	mg/Kg		07/06/20 07:28	07/07/20 06:51	1
Heptachlor epoxide	< 0.00059		0.0017	0.00059	mg/Kg		07/06/20 07:28	07/07/20 06:51	1
Methoxychlor	<0.00032		0.0083	0.00032	mg/Kg		07/06/20 07:28	07/07/20 06:51	1
Simazine	<0.013		0.067	0.013	mg/Kg		07/06/20 07:28	07/07/20 06:51	1
Toxaphene	< 0.0070		0.017	0.0070	mg/Kg		07/06/20 07:28	07/07/20 06:51	1

MB MB Dil Fac Surrogate Qualifier Limits Prepared Analyzed %Recovery 07/06/20 07:28 07/07/20 06:51 DCB Decachlorobiphenyl 97 33 - 148 Tetrachloro-m-xylene 76 30 - 121 07/06/20 07:28 07/07/20 06:51

Lab Sample ID: LCS 500-550741/2-A

Matrix: Solid

Analysis Batch: 550890

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 550741

Analysis Daten. 550050	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Aldrin	0.0133	0.0127		mg/Kg		95	52 - 122
alpha-BHC	0.0133	0.0128		mg/Kg		96	50 - 123
4,4'-DDD	0.0133	0.0137		mg/Kg		103	47 - 137
4,4'-DDE	0.0133	0.0134		mg/Kg		101	50 - 130
4,4'-DDT	0.0133	0.0157		mg/Kg		118	46 - 143
Dieldrin	0.0133	0.0133		mg/Kg		100	51 - 133
Endosulfan I	0.0133	0.0108		mg/Kg		81	30 - 120
Endosulfan II	0.0133	0.0127		mg/Kg		95	30 - 120
Endrin	0.0133	0.0138		mg/Kg		103	43 - 144
gamma-BHC (Lindane)	0.0133	0.0132		mg/Kg		99	50 - 122
Heptachlor	0.0133	0.0128		mg/Kg		96	53 - 129
Heptachlor epoxide	0.0133	0.0151		mg/Kg		113	50 - 139
Methoxychlor	0.0133	0.0155		mg/Kg		116	45 - 144

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	96		33 - 148
Tetrachloro-m-xylene	77		30 - 121

Client: Job Site Services Inc Project/Site: Waukegan, IL

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 500-184289-1 MS **Client Sample ID: TS-1 Matrix: Solid Prep Type: Total/NA Analysis Batch: 550890 Prep Batch: 550741**

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Aldrin	<0.00083		0.0159	0.0130		mg/Kg	<u> </u>	82	52 - 122	
alpha-BHC	<0.00051		0.0159	0.0138		mg/Kg	☼	87	50 - 123	
4,4'-DDD	<0.00040		0.0159	0.0163		mg/Kg	☼	102	47 - 137	
4,4'-DDE	0.00060	J	0.0159	0.0145		mg/Kg	₩.	88	50 - 130	
4,4'-DDT	<0.0011		0.0159	0.0145		mg/Kg	☼	91	46 - 143	
Dieldrin	0.0018	J	0.0159	0.0156		mg/Kg	₩	87	51 - 133	
Endosulfan I	<0.00087		0.0159	0.0112		mg/Kg	₩.	71	30 - 120	
Endosulfan II	< 0.00032		0.0159	0.0134		mg/Kg	☼	84	30 - 120	
Endrin	<0.00028		0.0159	0.0148		mg/Kg	☼	93	43 - 144	
gamma-BHC (Lindane)	<0.00043		0.0159	0.0136		mg/Kg	₩.	86	50 - 122	
Heptachlor	<0.00084		0.0159	0.0122		mg/Kg	☼	77	53 - 129	
Heptachlor epoxide	< 0.00071		0.0159	0.0156		mg/Kg	₩	98	50 - 139	
Methoxychlor	<0.00039		0.0159	0.0187		mg/Kg	₩	118	45 - 144	

MS MS Surrogate %Recovery Qualifier Limits DCB Decachlorobiphenyl 33 - 148 89 Tetrachloro-m-xylene 64 30 - 121

Lab Sample ID: 500-184289-1 MSD

Matrix: Solid

Analysis Batch: 550890									Prep Ba	tch: 5	50741
_	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aldrin	<0.00083		0.0160	0.0121		mg/Kg	₩	76	52 - 122	7	30
alpha-BHC	<0.00051		0.0160	0.0123		mg/Kg	₩	77	50 - 123	11	30
4,4'-DDD	<0.00040		0.0160	0.0157		mg/Kg	☼	98	47 - 137	4	30
4,4'-DDE	0.00060	J	0.0160	0.0140		mg/Kg	₩.	84	50 - 130	4	30
4,4'-DDT	<0.0011		0.0160	0.0131		mg/Kg	☼	82	46 - 143	10	30
Dieldrin	0.0018	J	0.0160	0.0153		mg/Kg	₩	84	51 - 133	2	30
Endosulfan I	<0.00087		0.0160	0.0112		mg/Kg	₩.	70	30 - 120	0	30
Endosulfan II	< 0.00032		0.0160	0.0128		mg/Kg	☼	80	30 - 120	5	30
Endrin	<0.00028		0.0160	0.0141		mg/Kg	☼	88	43 - 144	5	30
gamma-BHC (Lindane)	< 0.00043		0.0160	0.0130		mg/Kg	₩.	81	50 - 122	5	30
Heptachlor	<0.00084		0.0160	0.0113		mg/Kg	☼	71	53 - 129	8	30
Heptachlor epoxide	< 0.00071		0.0160	0.0143		mg/Kg	☼	89	50 - 139	9	30
Methoxychlor	< 0.00039		0.0160	0.0151		mg/Kg	₩.	94	45 - 144	21	30

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl	82		33 - 148
Tetrachloro-m-xylene	59		30 - 121

Client Sample ID: TS-1

Prep Type: Total/NA

Client: Job Site Services Inc Job ID: 500-184289-1 Project/Site: Waukegan, IL

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-550938/1-A

Matrix: Solid

Analysis Batch: 551052

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 550938

	MB	MR							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0059		0.017	0.0059	mg/Kg		07/07/20 07:26	07/07/20 18:59	1
PCB-1221	< 0.0073		0.017	0.0073	mg/Kg		07/07/20 07:26	07/07/20 18:59	1
PCB-1232	< 0.0073		0.017	0.0073	mg/Kg		07/07/20 07:26	07/07/20 18:59	1
PCB-1242	<0.0055		0.017	0.0055	mg/Kg		07/07/20 07:26	07/07/20 18:59	1
PCB-1248	<0.0066		0.017	0.0066	mg/Kg		07/07/20 07:26	07/07/20 18:59	1
PCB-1254	< 0.0036		0.017	0.0036	mg/Kg		07/07/20 07:26	07/07/20 18:59	1
PCB-1260	<0.0082		0.017	0.0082	mg/Kg		07/07/20 07:26	07/07/20 18:59	1
Polychlorinated biphenyls, Total	<0.0032		0.017	0.0032	mg/Kg		07/07/20 07:26	07/07/20 18:59	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		49 - 129	07/07/20 07:26	07/07/20 18:59	1
DCB Decachlorobiphenyl	87		37 - 121	07/07/20 07:26	07/07/20 18:59	1

LCS LCS

0.147

0.154

Result Qualifier

Unit

mg/Kg

mg/Kg

Spike

Added

0.167

0.167

37 - 121

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 550938

%Rec. Limits

D %Rec 88 57 - 120 92 61 - 125

LCS LCS %Recovery Qualifier Limits Tetrachloro-m-xylene 82 49 - 129

94

Lab Sample ID: 500-184289-1 MS

Lab Sample ID: LCS 500-550938/3-A

Matrix: Solid

DCB Decachlorobiphenyl

Matrix: Solid

Analyte

PCB-1016

PCB-1260

Surrogate

Analysis Batch: 551052

Analysis Batch: 551052

Client Sample ID: TS-1
Prep Type: Total/NA
Prep Batch: 550938

Sample Sample MS MS %Rec. Spike Analyte Result Qualifier Added Result Qualifier %Rec Limits Unit D PCB-1016 ₩ < 0.0071 0.197 0.202 mg/Kg 102 57 - 120 PCB-1260 <0.0098 0.197 0.202 mg/Kg 102 61 - 125

MS MS

Surrogate	%Recovery Qualifier	Limits
Tetrachloro-m-xylene	80	49 - 129
DCB Decachlorobiphenyl	106	37 - 121

Lab Sample ID: 500-184289-1 MSD

Matrix: Solid

Analysis Batch: 551052

Client Sample ID: TS-1 Prep Type: Total/NA Prep Batch: 550938

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
PCB-1016	<0.0071		0.196	0.192		mg/Kg	₩	98	57 - 120	5	30
PCB-1260	<0.0098		0.196	0.194		mg/Kg	₩	99	61 - 125	4	30

MSD MSD

Surrogate %Recovery Qualifier Limits Tetrachloro-m-xylene 83 49 - 129

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Client: Job Site Services Inc Job ID: 500-184289-1 Project/Site: Waukegan, IL

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 500-184289-1 MSD

Matrix: Solid

Analysis Batch: 551052

MSD MSD

Limits Surrogate %Recovery Qualifier DCB Decachlorobiphenyl 100 37 - 121

Method: 8151 - Herbicides

Lab Sample ID: MB 500-550695/1-A

Matrix: Solid

Analysis Batch: 550881

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 550695

Client Sample ID: TS-1

Prep Type: Total/NA

Prep Batch: 550938

MB MB Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac 2,4-D < 0.094 0.33 0.094 mg/Kg 07/05/20 08:50 07/06/20 23:16 10 Dalapon <0.078 0.67 0.078 mg/Kg 07/05/20 08:50 07/06/20 23:16 10 Dinoseb < 0.17 0.67 0.17 mg/Kg 07/05/20 08:50 07/06/20 23:16 10 0.061 mg/Kg 07/05/20 08:50 07/06/20 23:16 10 Pentachlorophenol < 0.061 0.17 Picloram < 0.069 0.17 0.069 mg/Kg 07/05/20 08:50 07/06/20 23:16 10 Silvex (2,4,5-TP) <0.085 0.33 0.085 mg/Kg 07/05/20 08:50 07/06/20 23:16 10

MR MR

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 07/05/20 08:50 07/06/20 23:16 DCAA 52 25 - 120

Lab Sample ID: LCS 500-550695/2-A

Matrix: Solid

Analysis Batch: 550881

Client Sample ID: Lab Control Sample

Prep Type: Total/NA **Prep Batch: 550695**

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit D %Rec Limits 2,4-D 1.35 0.653 48 20 - 115 mg/Kg Dalapon 1.33 0.420 J mg/Kg 31 20 - 110 1.35 0.306 J 23 10 - 100 Dinoseh mg/Kg Pentachlorophenol 1.34 0.731 mg/Kg 54 30 - 110 mg/Kg Picloram 1.33 0.551 41 20 - 132 Silvex (2,4,5-TP) 1.34 0.734 mg/Kg 55 29 - 115

LCS LCS

Surrogate %Recovery Qualifier Limits DCAA 25 - 120

Method: 6010B - Total Metals

Lab Sample ID: MB 500-550475/1-A

Matrix: Solid

Analysis Batch: 550705

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 550475

МВ	MB							
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<0.39		2.0	0.39	mg/Kg		07/02/20 06:54	07/05/20 22:03	1
<0.34		1.0	0.34	mg/Kg		07/02/20 06:54	07/05/20 22:03	1
<0.11		1.0	0.11	mg/Kg		07/02/20 06:54	07/05/20 22:03	1
<0.093		0.40	0.093	mg/Kg		07/02/20 06:54	07/05/20 22:03	1
<0.47		5.0	0.47	mg/Kg		07/02/20 06:54	07/05/20 22:03	1
< 0.036		0.20	0.036	mg/Kg		07/02/20 06:54	07/05/20 22:03	1
<3.4		20	3.4	mg/Kg		07/02/20 06:54	07/05/20 22:03	1
	Result <0.39 <0.34 <0.11 <0.093 <0.47 <0.036	Result Qualifier	Result Qualifier RL <0.39	Result Qualifier RL MDL <0.39	Result Qualifier RL MDL Unit <0.39	Result Qualifier RL MDL Unit D <0.39	Result Qualifier RL MDL Unit D Prepared <0.39	Result Qualifier RL MDL Unit D Prepared Analyzed <0.39

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Client: Job Site Services Inc Job ID: 500-184289-1 Project/Site: Waukegan, IL

Method: 6010B - Total Metals (Continued)

Lab Sample ID: MB 500-550475/1-A Matrix: Solid

Analysis Batch: 550705

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 550475

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	<0.50		1.0	0.50	mg/Kg		07/02/20 06:54	07/05/20 22:03	1
Cobalt	<0.13		0.50	0.13	mg/Kg		07/02/20 06:54	07/05/20 22:03	1
Copper	<0.28		1.0	0.28	mg/Kg		07/02/20 06:54	07/05/20 22:03	1
Iron	<10		20	10	mg/Kg		07/02/20 06:54	07/05/20 22:03	1
Lead	<0.23		0.50	0.23	mg/Kg		07/02/20 06:54	07/05/20 22:03	1
Magnesium	<5.0		10	5.0	mg/Kg		07/02/20 06:54	07/05/20 22:03	1
Manganese	<0.15		1.0	0.15	mg/Kg		07/02/20 06:54	07/05/20 22:03	1
Nickel	<0.29		1.0	0.29	mg/Kg		07/02/20 06:54	07/05/20 22:03	1
Potassium	<18		50	18	mg/Kg		07/02/20 06:54	07/05/20 22:03	1
Selenium	<0.59		1.0	0.59	mg/Kg		07/02/20 06:54	07/05/20 22:03	1
Silver	<0.13		0.50	0.13	mg/Kg		07/02/20 06:54	07/05/20 22:03	1
Sodium	<15		100	15	mg/Kg		07/02/20 06:54	07/05/20 22:03	1
Thallium	<0.50		1.0	0.50	mg/Kg		07/02/20 06:54	07/05/20 22:03	1
Vanadium	<0.12		0.50	0.12	mg/Kg		07/02/20 06:54	07/05/20 22:03	1
Zinc	<0.88		2.0	0.88	mg/Kg		07/02/20 06:54	07/05/20 22:03	1

Lab Sample ID: LCS 500-550475/2-A

Matrix: Solid

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Analysis Batch: 550705							Prep Batch: 550475
	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Antimony	50.0	44.1		mg/Kg		88	80 - 120
Arsenic	10.0	9.23		mg/Kg		92	80 - 120
Barium	200	191		mg/Kg		95	80 - 120
Beryllium	5.00	4.63		mg/Kg		93	80 - 120
Boron	100	88.0		mg/Kg		88	80 - 120
Cadmium	5.00	4.69		mg/Kg		94	80 - 120
Calcium	1000	935		mg/Kg		93	80 - 120
Chromium	20.0	19.1		mg/Kg		96	80 - 120
Cobalt	50.0	48.7		mg/Kg		97	80 - 120
Copper	25.0	24.3		mg/Kg		97	80 - 120
Iron	100	104		mg/Kg		104	80 - 120
Lead	10.0	9.49		mg/Kg		95	80 - 120
Magnesium	1000	895		mg/Kg		89	80 - 120
Manganese	50.0	45.8		mg/Kg		92	80 - 120
Nickel	50.0	48.3		mg/Kg		97	80 - 120
Potassium	1000	924		mg/Kg		92	80 - 120
Selenium	10.0	8.71		mg/Kg		87	80 - 120
Silver	5.00	4.73		mg/Kg		95	80 - 120
Sodium	1000	936		mg/Kg		94	80 - 120
Thallium	10.0	9.87		mg/Kg		99	80 - 120
Vanadium	50.0	49.4		mg/Kg		99	80 - 120
Zinc	50.0	46.4		mg/Kg		93	80 - 120
<u> </u>							

Client: Job Site Services Inc Job ID: 500-184289-1 Project/Site: Waukegan, IL

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-550540/12-A Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 550807 MB MB

Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac Analyte 0.017 0.0056 mg/Kg 07/02/20 13:30 07/06/20 11:16 Mercury <0.0056

Lab Sample ID: LCS 500-550540/13-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 550807 Prep Batch: 550540** LCS LCS

Spike %Rec. Analyte Added Result Qualifier Unit D %Rec Limits 0.167 0.162 97 80 - 120

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 500-550857/1-A Client Sample ID: Method Blank Prep Type: Total/NA

mg/Kg

Matrix: Solid

Mercury

Analysis Batch: 551660

MB MB Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac 07/06/20 20:19 07/07/20 20:38 Chromium, hexavalent 1.0 0.39 mg/Kg < 0.39

Lab Sample ID: LCS 500-550857/2-A **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 551660 Prep Batch: 550857 Spike LCS LCS %Rec.

Added Analyte Result Qualifier Unit D %Rec Limits

Chromium, hexavalent 10.0 9.80 mg/Kg 98 80 - 120

Lab Sample ID: LCS 500-550857/3-A

Matrix: Solid

Analysis Batch: 551660 Prep Batch: 550857 Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits 80 - 120 Chromium, hexavalent 1200 1050 mg/Kg 87

Method: 9014 - Cyanide

Lab Sample ID: MB 500-550958/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 551290

MB MB Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac

07/07/20 09:10 07/07/20 15:14 Cyanide, Total < 0.25 0.50 0.25 mg/Kg

Lab Sample ID: LCS 500-550958/2-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 551290 Prep Batch: 550958

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits 5.00 Cyanide, Total 5.16 mg/Kg 103 85 - 115

7/10/2020

Prep Batch: 550540

Prep Batch: 550857

Prep Type: Total/NA

Prep Batch: 550958

Client Sample ID: Lab Control Sample

Job ID: 500-184289-1

Client: Job Site Services Inc Project/Site: Waukegan, IL

Method: 9014 - Cyanide (Continued)

Lab Sample ID: 500-184289-1 MS	Client Sample ID: TS-1
Matrix: Solid	Prep Type: Total/NA
Analysis Batch: 551290	Prep Batch: 550958

Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits ₩ Cyanide, Total 0.29 J F2 2.20 77 75 - 125 1.99 mg/Kg

Lab Sample ID: 500-184289-1 MSD **Client Sample ID: TS-1 Matrix: Solid** Prep Type: Total/NA Analysis Batch: 551290 **Prep Batch: 550958** MSD MSD %Rec. **RPD** Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD Limit Cyanide, Total 0.29 J F2 2.20 2.50 F2 mg/Kg 100 75 - 125 22 20

Method: 9045D - pH

Lab Sample ID: LCS 310-284319/1

Matrix: Solid

Analysis Batch: 284319

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

 Analyte
 Added pH
 Result Qualifier pH
 Unit SU
 D
 %Rec. Limits

 pH
 7.00
 7.0
 SU
 100
 98 - 102

Lab Sample ID: 500-184289-1 DU Client Sample ID: TS-1
Matrix: Solid Prep Type: Soluble

Analysis Batch: 284319

Sample Sample DU DU **RPD** Result Qualifier **Analyte** Result Qualifier Unit D RPD Limit SU рН 6.9 HF 6.9 0.7 20

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 500-551086/1-A

Matrix: Solid

Analysis Batch: 551111

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 551086

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.7		2.0	1.7	mg/Kg		07/07/20 19:54	07/07/20 21:46	1
Fluoride	<0.67		2.0	0.67	mg/Kg		07/07/20 19:54	07/07/20 21:46	1
Nitrate as N	<0.68		2.0	0.68	mg/Kg		07/07/20 19:54	07/07/20 21:46	1
Sulfate	<0.95		2.0	0.95	ma/Ka		07/07/20 19:54	07/07/20 21:46	1

Lab Sample ID: LCS 500-551086/2-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 551111 Prep Batch: 551086** Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits Chloride 30.0 30.4 101 80 - 120 mg/Kg Fluoride 10.0 9.52 mg/Kg 95 80 - 120Nitrate as N 20.0 20.7 mg/Kg 104 80 - 120 50.0 50.9 mg/Kg 102 80 - 120 Sulfate

Eurofins TestAmerica, Chicago

Client: Job Site Services Inc
Project/Site: Waukegan, IL

Job ID: 500-184289-1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab	S	Samp	le	ID:	500	-18	428	9-1	MS

Matrix: Solid

Analysis Batch: 551111

Client S	ample	ID: TS-1
Prep '	Type:	Total/NA
Prep	Batch	: 551086

Client Sample ID: TS-1

Analysis Batch. 331111	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Chloride	3.0		11.8	13.4		mg/Kg	<u> </u>	88	75 - 125
Fluoride	11	F1	7.07	15.3	F1	mg/Kg	₩	61	75 - 125
Nitrate as N	25		11.8	33.7		mg/Kg	₩	77	75 - 125
Sulfate	9.6		29.5	37.5		mg/Kg	₩	95	75 - 125

Lab Sample ID: 500-184289-1 MSD

Matrix: Solid Analysis Batch: 551111									Prep Tyl Prep Ba		
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	3.0		11.7	13.2		mg/Kg	<u></u>	88	75 - 125	1	20
Fluoride	11	F1	7.00	15.3	F1	mg/Kg	☼	62	75 - 125	0	20
Nitrate as N	25		11.7	36.5		mg/Kg	☼	102	75 - 125	8	20
Sulfate	9.6		29.2	38.0		mg/Kg	₽	97	75 ₋ 125	1	20

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Client: Job Site Services Inc Project/Site: Waukegan, IL

Client Sample ID: TS-1

Date Received: 06/30/20 15:20

Lab Sample ID: 500-184289-1 Date Collected: 06/30/20 07:45

Matrix: Solid

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			284212	07/06/20 16:50	ARG	TAL CF
Soluble	Analysis	9045D		1	284319	07/07/20 10:49	ARG	TAL CF
Total/NA	Analysis	Moisture		1	550333	07/01/20 11:37	LWN	TAL CHI
Total/NA	Analysis	D422		1	156598	07/01/20 21:36	CPF	TAL BUR

Client Sample ID: TS-1

Lab Sample ID: 500-184289-1 Date Collected: 06/30/20 07:45

Matrix: Solid

Date Received: 06/30/20 15:20 Percent Solids: 83.2

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			550457	06/30/20 17:51	WRE	TAL CHI
Total/NA	Analysis	8260B		1	550743	07/06/20 12:04	JDD	TAL CHI
Total/NA	Prep	3541			550518	07/02/20 08:20	BSO	TAL CHI
Total/NA	Analysis	8270D		1	550625	07/03/20 00:47	NRJ	TAL CHI
Total/NA	Prep	3541			550741	07/06/20 07:28	BSO	TAL CHI
Total/NA	Analysis	8081B		1	550890	07/07/20 17:32	PJ1	TAL CHI
Total/NA	Prep	3541			550938	07/07/20 07:26	BSO	TAL CHI
Total/NA	Analysis	8082A		1	551052	07/07/20 21:48	PJ1	TAL CHI
Total/NA	Prep	8151A			550695	07/05/20 08:50	DAK	TAL CHI
Total/NA	Analysis	8151		10	550881	07/07/20 04:05	JBJ	TAL CHI
Total/NA	Prep	3050B			550475	07/02/20 06:54	LMN	TAL CHI
Total/NA	Analysis	6010B		1	550705	07/06/20 00:28	EEN	TAL CHI
Total/NA	Prep	7471B			550540	07/02/20 13:30	MJG	TAL CHI
Total/NA	Analysis	7471B		1	550807	07/06/20 11:32	MJG	TAL CHI
Total/NA	Analysis	7196A		1	551662	07/10/20 12:04	PFK	TAL CHI
Total/NA	Prep	3060A			550857	07/06/20 20:19	SJP	TAL CHI
Total/NA	Analysis	7196A		1	551660		PFK	TAL CHI
					(Start)	07/07/20 20:45		
					(End)	07/07/20 20:45		
Total/NA	Prep	9010B			550958	07/07/20 09:10	MS	TAL CHI
Total/NA	Analysis	9014		1	551655		MS	TAL CHI
					(Start)	07/07/20 15:12		
					(End)	07/07/20 15:14		
Total/NA	Prep	9010B			550958	07/07/20 09:10	MS	TAL CHI
Total/NA	Analysis	9014		1	551290	07/07/20 15:15	MS	TAL CHI
Total/NA	Prep	300_Prep			551086	07/07/20 19:54	EAT	TAL CHI
Total/NA	Analysis	9056A		1	551111	07/07/20 22:11	EAT	TAL CHI

Lab Sample ID: 500-184289-2 **Client Sample ID: TS-2 Matrix: Solid**

Date Collected: 06/30/20 08:00 Date Received: 06/30/20 15:20

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			284212	07/06/20 16:50	ARG	TAL CF
Soluble	Analysis	9045D		1	284319	07/07/20 10:52	ARG	TAL CF

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Client: Job Site Services Inc Project/Site: Waukegan, IL

Client Sample ID: TS-2

Date Collected: 06/30/20 08:00 Date Received: 06/30/20 15:20 Lab Sample ID: 500-184289-2

Matrix: Solid

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	550333	07/01/20 11:37	LWN	TAL CHI
Total/NA	Analysis	D422		1	156598	07/01/20 21:38	CPF	TAL BUR

Client Sample ID: TS-2 Lab Sample ID: 500-184289-2

Date Collected: 06/30/20 08:00 Matrix: Solid

Date Received: 06/30/20 15:20 Percent Solids: 82.5

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			550457	06/30/20 17:51	WRE	TAL CHI
Total/NA	Analysis	8260B		1	550743	07/06/20 12:31	JDD	TAL CHI
Total/NA	Prep	3541			550518	07/02/20 08:20	BSO	TAL CHI
Total/NA	Analysis	8270D		1	550625	07/03/20 01:13	NRJ	TAL CHI
Total/NA	Prep	3541			550741	07/06/20 07:28	BSO	TAL CHI
Total/NA	Analysis	8081B		1	550890	07/07/20 18:34	PJ1	TAL CHI
Total/NA	Prep	3541			550938	07/07/20 07:26	BSO	TAL CHI
Total/NA	Analysis	8082A		1	551052	07/07/20 22:35	PJ1	TAL CHI
Total/NA	Prep	8151A			550695	07/05/20 08:50	DAK	TAL CHI
Total/NA	Analysis	8151		10	550881	07/07/20 04:24	JBJ	TAL CHI
Total/NA	Prep	3050B			550475	07/02/20 06:54	LMN	TAL CHI
Total/NA	Analysis	6010B		1	550705	07/06/20 00:32	EEN	TAL CHI
Total/NA	Prep	7471B			550540	07/02/20 13:30	MJG	TAL CHI
Total/NA	Analysis	7471B		1	550807	07/06/20 11:38	MJG	TAL CHI
Total/NA	Analysis	7196A		1	551662	07/10/20 12:04	PFK	TAL CHI
Total/NA	Prep	3060A			550857	07/06/20 20:19	SJP	TAL CHI
Total/NA	Analysis	7196A		1	551660		PFK	TAL CHI
					(Start)	07/07/20 20:46		
					(End)	07/07/20 20:46		
Total/NA	Prep	9010B			550958	07/07/20 09:10	MS	TAL CHI
Total/NA	Analysis	9014		1	551655		MS	TAL CHI
					(Start)			
					(End)	07/07/20 15:16		
Total/NA	Prep	9010B			550958	07/07/20 09:10	MS	TAL CHI
Total/NA	Analysis	9014		1	551290	07/07/20 15:16	MS	TAL CHI
Total/NA	Prep	300_Prep			551086	07/07/20 19:54	EAT	TAL CHI
Total/NA	Analysis	9056A		1	551111	07/07/20 22:49	EAT	TAL CHI

Client Sample ID: Trip Blank

Date Collected: 06/30/20 00:00

Date Received: 06/30/20 15:20

Lab Sample ID: 500-184289-3

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	551087	07/07/20 23:25	JDD	TAL CHI

Lab Chronicle

Client: Job Site Services Inc
Project/Site: Waukegan, IL

Job ID: 500-184289-1

Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990 TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401 TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Job ID: 500-184289-1

Client: Job Site Services Inc Project/Site: Waukegan, IL

Laboratory: Eurofins TestAmerica, Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	I	Program	Identification Number	Expiration Date			
Illinois		NELAP	IL00035	04-30-20 *			
0 ,		port, but the laboratory is r	not certified by the governing authority.	This list may include analytes for whic			
the agency does not of Analysis Method	offer certification. Prep Method	Matrix	Analyte				
7196A		Solid	Chromium, trivalent				
8082A	3541	Solid	Polychlorinated biphenyls, T	otal			
8260B		Water	1,3-Dichloropropene, Total				
8260B	5035	Solid	1,3-Dichloropropene, Total				
9014 9010B		Solid					
Moisture		Solid	Percent Moisture				
Moisture		Solid	Percent Solids				

Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date	
ANAB	Dept. of Defense ELAP	L2336	02-25-23	
Connecticut	State	PH-0751	09-30-21	
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-16-21	
Florida	NELAP	E87467	06-30-21	
Minnesota	NELAP	050-999-436	12-31-20	
New Hampshire	NELAP	2006	12-18-20	
New Jersey	NELAP	VT972	06-30-21	
New York	NELAP	10391	04-01-21	
Pennsylvania	NELAP	68-00489	04-30-21	
Rhode Island	State	LAO00298	12-30-20	
US Fish & Wildlife	US Federal Programs	058448	07-31-20	
USDA	US Federal Programs	P330-17-00272	08-09-20	
Vermont	State	VT4000	12-31-20	
Virginia	NELAP	460209	12-14-20	
Wisconsin	State	399133350	08-31-20	

Laboratory: Eurofins TestAmerica, Cedar Falls

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory	101044	11-01-20
	Accreditation Program (IHLAP)		
Colorado	Petroleum Storage Tank Program	IA100001 (OR)	09-29-20
Georgia	State	IA100001 (OR)	09-29-20
Illinois	NELAP	200024	11-29-20
lowa	State	007	12-01-21
Kansas	NELAP	E-10341	01-31-21
Minnesota	NELAP	019-999-319	12-31-20
Minnesota (Petrofund)	State	3349	08-22-21
North Dakota	State	R-186	09-30-20
Oregon	NELAP	IA100001	09-29-20
USDA	US Federal Programs	P330-19-00003	01-02-22

^{*} Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Chicago

2417 Bond Street

University Park. IL 60484 Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

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1110101101010101010101010101010101010101	Sampler: / /	1 1 1		Lab P	PM:							Carri	ier Tracl	king No(s	s):		CC	OC No.				
Client Information Client Contact: A / I / I / I .	Nate Hehr Mod			Mocl	ckler, Diana J						_					500-82924-37820.1						
Chric Martin VCTE HOW	Phone: 986 -				ail: na.mockler@testamericainc.com											Pa	ge: age 1 of 1					
Company: Job Site Services, Inc.						Analysis Reque						eques	sted				Joi	500-	- 18	24.	284	}
Address: 4395 Wilder Road	Due Date Request	red:			1 8	A.		014,								\top	Pr	eservation - HCL	Code	es: M - Hexa	ane	
City: Bay City State, Zip:	TAT Requested (d	-				**************************************		96,00							1 1		В	- NaOH - Zn Acetate		N - None O - AsNa	е	
MI, 48706		sday		ļ		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1A, 827									DE	- Nitric Acid - NaHSO4 - MeOH		P - Na2O Q - Na2S	04S SO3	
Phone. 407.700.8867(Tel) 989-370-9006 Email: omartin@josmi.com Nhehir@jssmi.com	PO#- Purchase Order	r not require	ad 200346)	(Q	rometer		, 7471B, 8081B, 8082A, 8151A, 8270D, 9014, re									G H	- Amchlor - Ascorbic Ac	.cid		04 Dodecahy	ydrate
Email: omartin@joomi.com nhehir@josmi.com	WO #:				s or	P P	}	, 808								S.	J-	lce DI Water	•	U - Aceto V - MCAA	A	
Waukegan, IL	Project #: 50017790				12/2	sve and		, 8081B								ntaine	L.	K - EDTA W - pH 4-5 L - EDA Z - other (sp				
Site:	\$SOW#:				Samp	e (Sir	;	471B	놀							of con		ier:				
	2la Data	Sample	Type (C=comp, o	Matrix (w=water,	Field Filtered Sample	renorm mainaby 1168 of not). D422 - Grain Size (Sieve and Hydrometer)	8260B - VOCs		8260B - Trip Blank							Total Number		Canada		4	- /51 - 64	
Sample Identification	Sample Date	Time	G=grab) вт=т Preservation			N	1 8	N 8 8	A A	-	+	+	$\vdash \vdash$	+-	+-+	大	1	Specia	ıl Inst	ruction	ns/Note	::
TS-1	12/20/20	ATUS.		Solid	ľΥ	丁	1	1	1	$\vdash \vdash$	+	++	1	+	+++	+	+					
TS-2	10/20/20	0745	 	Solid	$\dag \uparrow$	X X	44	₩	H		+	++	\vdash	+	++	+	+					
TO RIV	W/34 11	Cocc		Water	\sqcap	+	+	1	V	一	1	11		\top	11	1	1			Milmon and comment		
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Possible Hazard Identification Non-Hazard Flammable Skin Irritant Poisc Deliverable Requested: I, II, III, IV, Other (specify)	on B Unkn	own □ _F	Radiological		s	ampi	le Dis Retur	sposa rn To	al (A Clien	fee m	ay be	asses Dispo:	sed if sal By	sampi Lab	les are	retair Arch	ned hive	longer tha For	an 1 n	month) Month	hs	
Deliverable Requested: I, II, III, IV, Other (specify)		····	<u> </u>							C Req												
Empty Kit Relinquished by:		Date:			Time) :		4 4			^		Method	f of Shipr	ment:	DRI	NP	OFF				
Relinquished by.	Date/Time: 6/3	12/21	1520 Com	mpany,	<u> </u>	Red	ceived	The state of the s	10		Una	AHL		Date	2/30		<u>ئ۔</u> ۱	152	0	Company	SE	DF
Relinquished by:	Date/Time:	0160	Con	mpany		Ren	ceived	fuz i by:	<u> </u>		سد	<u> 400</u>	3	Date	a)Time.	100	<u></u>	1000		Company	<u> </u>	<u>u</u>
Relinquished by:	Date/Time		Con	mpany		Red	ceived	by:						Date	e/Time:				7	Company	,	
Custody Seals Intact: Custody Seal No.:						Cor	oler Te	∍mpera	ature(s)) °C and	d Other	Remark	s:	17.	4							

Eurofins TestAmerica, Chicago

2417 Bond Street

University Park, IL 60484

Chain of Custody Record

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ns Environment Testing America

Phone: 708-534-5200 Fax: 708-534-5211															
Client Information (Sub Contract Lab)	Sampler: Lab PM: Mockler, D				Diana J	500-184289 Chain of Custody						.1			
Client Contact: Shipping/Receiving	Phone:	ail: na.moc	ockler@testamericainc.com Illinois							Page Tor 1					
Company: TestAmerica Laboratories, Inc.					ditations AP - Illi		(See note):					Job #: 500-184289-1			
Address: 30 Community Drive, Suite 11,	Due Date Requested:	718120)			-	Analy	sis Requ	netod		$\parallel \parallel$	Preservation Co	des:		
City:	TAT Requested (days):	110100	<u> </u>				Allaly	sis Reque	T T	1 1		A - HCL B - NaOH	M - Hexane N - None		
South Burlington State, Zip: VT, 05403											2.272.0	C - Zn Acetate D - Nitric Acid E - NaHSO4	O - AsNaO2 P - Na2O4S Q - Na2SO3		
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO#:		-		iter)						28 192 182	F - MeOH G - Amchlor	R - Na2S2O3 S - H2SO4		
Email:	WO #:				and Hydrometer)						-	H - Ascorbic Acid I - Ice J - DI Water			
Project Name:	Project #:				and H							K - EDTA L - EDA	W - MCAA W - pH 4-5 Z - other (specify)		
Waukegan, IL Site:	50017790 ssow#:											Other:	2 - Outor (apecity)		
	<u> </u>				Size (Sieve										
Sample Identification - Client ID (Lab ID)	1	Sample Type (C=comp. ime G=grab)	Matrix (W=water, S=solid, O=waste/oll, BT=Tissue, A=Air)		D422/ Grain S					2		Special in	nstructions/Note:		
The second of th		A CONTRACTOR										18. A. T. J. F. S. T.	A 400		
TS-1 (500-184289-1)	6/30/20 Ce	7:45 entral	Solid	Ш	X							,45.			
TS-2 (500-184289-2)	1 07.507.20 1	8:00 entral	Solid		X										
				Ш								1			
				Ш											
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				Ш											
				Ш						i i		<u>¢</u>			
				Ш							325				
Note: Since laboratory accreditations are subject to change, Eurofins TestAmer maintain accreditation in the State of Origin listed above for analysis/tests/matrix TestAmerica attention immediately. If all requested accreditations are current to	cheing analyzed, the sampl	les must be shioned l	hack to the Furci	fine Tee	stAmeric	a laborator	v or other in	ries. This samp structions will b	ple shipment is to be provided. An	forwarded ny changes	under to acc	shain-of-custody. If the reditation status should	laboratory does not currently d be brought to Eurofins		
Possible Hazard Identification				s			-	may be ass	essed if san	nples an	ereta	ined longer than	1 month)		
Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable	Ponki 2	_	4		eturn To			osal By Lab		#Ar	chive For	Months		
	•					Instructio	ons/QC R	equirements							
Empty Kit Relinquished by:	Date/Time:		Company	Time		ived by			Method of S		Ш		- A		
Relinquished by: Stephania Hemanday Relinquished by:	06 0E V	1630	Company THC	H		ived by		2		Date/Time:	12	Des 10:37	Tolker		
1	Date/Time:		Company		Rece	ived by:				Date/Time:			Company		
Relinquished by:	Date/Time:		Company		Rece	ived by:			C	Date/Time:			Company		
Custody Seals Intact: Custody Seal No.: (O / :	5918				Coole	er Tempera	iture(s) °C a	nd Other Rema	arks: / (0					













Environment Testing TestAmerica



on 184289 Chain of Custody

Cooler/Sample Receipt and Temperature

Client Information		A PROPERTY OF		don't have been drawn	Control of the second
Client: ETA Chicag					
City/State: CITY INIVERSITY	Park	STATE	Project: Wau	Kegan, IL	
Receipt Information			A A	U. I	
Date/Time Received:	20	11015	Received By:	Je	
Delivery Type: UPS	FedEx	I	FedEx Ground	US Mail	☐ Spee-Dee
☐ Lab Courie	er Lab Field	d Services [Client Drop-off	Other:	
Condition of Cooler/Containers		65. 47.65			CAY THE LAYER
Sample(s) received in Cooler		□No	If yes: Cooler ID		
Multiple Coolers?	☐ Yes	No	If yes: Cooler#	of	
Cooler Custody Seals Present	? 🗷 Yes	□ No	If yes: Cooler cu	stody seals intact?	Yes □ No
Sample Custody Seals Preser	nt? Yes	No	If yes: Sample co	ustody seals intact?	Yes No
Trip Blank Present?	☐ Yes	Ø No	If yes: Which VC	A samples are in coo	oler? 1
Temperature Record	"我们就是"。 第1			A Later Colonia	
Coolant: Wet ice	Blue ice	☐ Dry ice	Other:	DN	ONE
Thermometer ID:	D		Correction Facto		
* Temp Blank Temperature - if r	o temp blank, or to	emp blank tem	perature above criteria	, proceed to Sample Cont.	alner Temperature
Uncorrected Temp (°C):			Corrected Temp	(°C):	
Sample Container Temperatur				TAINED 0	
Container(s) used:	ustic 250r	TLA IN	CON	ITAINER 2	
Uncorrected Temp (°C):	0.8	,,,,,,,,,			
Corrected Temp (°C):	0.9				
Exceptions Noted	AND STATE OF THE STATE OF	THE B		The World	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
If temperature exceeds crit a) If yes: Is there evidence				ampling?	□ No □ No
2) If temperature is <0°C, are	there obvious	signs that	he integrity of sam	ple containers is con	npromised?
(e.g., bulging septa, broke				☐ Yes	□No
Note: If yes, contact PM bef	ore proceeding.	If no, procee			11 01 15 1 15 1 10 P
Additional Comments	1. STATE OF THE PARTY OF THE PA				d 1317
		4			

Document: CF-LG-WI-002

Revision: 25 Date: 06/17/2019

Eurofins TestAmerica, Cedar Falls

General temperature criteria is 0 to 6°C Bacteria temperature criteria is 0 to 10°C

Eurofins TestAmerica, Chicago

Phone: 708-534-5200 Fax: 708-534-5211

2417 Bond Street

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7/10/2020

Chain of Custody Record University Park, IL 60484

eurofins :

Environment Testing America

Carrier Tracking No(s): Mockler, Diana J 500-136884.1 Client Information (Sub Contract Lab) Phone: State of Origin: Page: Shipping/Receiving diana.mockler@testamericainc.com Ilinois Page 1 of 1 Accreditations Required (See note): Job # TestAmerica Laboratories, Inc. NELAP - Illinois 500-184289-1 Address: Due Date Requested: Preservation Codes: 3019 Venture Way, **Analysis Requested** 7/7/2020 TAT Requested (days): B - NaOH N - None Cedar Falls C - Zn Acetate O - AsNaO2 State, Zip: D - Nitric Acid P - Na2O4S IA, 50613 E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 PO#: G - Amchlor S-H2SO4 319-277-2401(Tel) 319-277-2425(Fax) T - TSP Dodecahydrate H - Ascorbic Acid WO# 1-lce U - Acetone Field Fittered Sample (Yes or Perform MS/MSD (Yes or No) J - DI Water V - MCAA K - EDTA W - pH 4-5 Project Name: Project #: Z - other (specify) L-EDA Waukegan, IL 50017790 SSOW# Other: of **Total Number** Matrix Sample Type (C=comp, Sample Sample Identification - Client ID (Lab ID) Sample Date Time G=grab) BT=Tissue, A=Air) Special Instructions/Note: Preservation Code: 07:45 TS-1 (500-184289-1) 6/30/20 Solid X Central 08:00 TS-2 (500-184289-2) 6/30/20 Solid X Central Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica. Possible Hazard Identification Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Archive For Return To Client Disposal By Lab Unconfirmed Months Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 Special Instructions/QC Requirements: Empty Kit Relinquished by: Received by: Date/Time: Company Stephanie Hemander Received by: Relinquished by: Date/Time: Custody Seals Intact: Custody Seal No .: Cooler Temperature(s) °C and Other Remarks: Δ Yes Δ No

Ver: 01/16/2019















Client: Job Site Services Inc Job Number: 500-184289-1

Login Number: 184289 List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott. Sherri L

Creator: Scott, Sherri L		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	17.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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Client: Job Site Services Inc Job Number: 500-184289-1

Login Number: 184289

List Number: 2

Creator: Khudaier, Zahraa

List Source: Eurofins TestAmerica, Burlington

List Creation: 07/01/20 03:52 PM

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples</td>	N/A	Lab does not accept radioactive samples
The cooler's custody seal, if present, is intact.	True	1015918
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.1°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
s the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is 66mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Client: Job Site Services Inc Job Number: 500-184289-1

Login Number: 184289
List Source: Eurofins TestAmerica, Cedar Falls
List Number: 3
List Creation: 07/02/20 01:22 PM

Creator: Homolar, Dana J

oreator. Homolar, Dana o		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

N/A

Residual Chlorine Checked.

Report Number F20183-0116 Account Number 99990



3505 Conestoga Dr. Fort Wayne, IN 46808 260.483.4759 algreatlakes.com

To: JOB SITE SERVICES 4395 WILDER RD **BAY CITY, MI 48706** For: OMC WAUKEGAN 9605 136TH AVE **BRISTOL WI**

Date Received: 07/01/2020 Date Reported: 07/06/2020

Attn: NATE HEHIR

SOIL TEST REPORT Sample ID: TS-1 Lab Number: 37991 Page: 1 of 2

						Test Results								
Organic Matter	Phosp	horus	Potassium	Magnesium	Calcium	Sodium	pl	Н	CEC		Cat	tion Satura	tion	
%	Bray-1 Equiv ppm-P	Bray P2 ppm-P	K ppm	Mg ppm	Ca ppm	Na ppm	Soil pH	Buffer pH	meq/100g	% K	% Mg	% Ca	% H	% Na
3.9	26		155	540	1550	9	6.9		12.9	3.1	34.9	60.2	1.5	0.3
Sulfur S ppm	Zinc Zn ppm	Manganese Mn ppm	Iron Fe ppm	Copper Cu ppm	Boron B ppm	Soluble Salts (1:2) mmho/cm	Nitrate NO₃-N ppm		nmonium NH₄-N ppm	Bicarbonate-P P ppm	Chloric Cl ppm			Aluminum Al-M3 ppm
						0.2								

						Graphic Sum	mary					
Very High												Very High
High												High
Medium												Medium
Low												Low
Very Low												Very Low
	P1	P2	К	Mg	Ca	S	Zn	Mn	Fe	Cu	В	

		Soil Fertility Rec	ommenda	tions - Poi	ınds per 1	.,000 Տգւ	are Feet						
Intended Crop	Yield Goal	Previous Crop	Lime	Nitrogen N	Phosphate P ₂ O ₅	Potash K₂O	Magnesium Mg	Sulfur S	Zinc Zn	Manganese Mn	Iron Fe	Copper Cu	Boron B
Lawn - Maintenance Broadleaf Shrubs			0	4 4	1 2	0 0	0						

Report reviewed and approved by our professional agronomy staff.

<u>Sample TS-1</u>: LAWN - Split the recommended amount into 3-4 applications during a growing season. <u>Sample TS-1</u>: SOLUBLE SALTS - VERY LOW - Salinity effects mostly negligible.

Report Number F20183-0116 Account Number 99990



3505 Conestoga Dr. Fort Wayne, IN 46808 260.483.4759 algreatlakes.com

To: JOB SITE SERVICES 4395 WILDER RD **BAY CITY, MI 48706** For: OMC WAUKEGAN 9605 136TH AVE **BRISTOL WI**

Date Received: 07/01/2020 Date Reported: 07/06/2020

Attn: NATE HEHIR

SOIL TEST REPORT Sample ID: TS-2 Lab Number: 37992 Page: 2 of 2

						Test Results								
Organic Matter	Phosp	horus	Potassium	Magnesium	Calcium	Sodium	pl	н	CEC		Cat	tion Satura	tion	
%	Bray-1 Equiv ppm-P	Bray P2 ppm-P	K ppm	Mg ppm	Ca ppm	Na ppm	Soil pH	Buffer pH	meq/100g	% K	% Mg	% Ca	% H	% Na
4.8	29		158	690	1900	9	7.1		15.7	2.6	36.6	60.5		0.2
Sulfur S ppm	Zinc Zn ppm	Manganese Mn ppm	Iron Fe ppm	Copper Cu ppm	Boron B ppm	Soluble Salts (1:2) mmho/cm	Nitrate NO₃-N ppm		nmonium NH ₄ -N ppm	Bicarbonate-P P ppm	Chloric Cl ppm			Aluminum Al-M3 ppm
						0.2								

	Graphic Summary																
Very High																	Very High
High																	High
Medium																	Medium
Low																	Low
Very Low																	Very Low
	F	1	P2	ı	K		Mg		Ca		S	Zn	Mn	Fe	Cu	В	

	Soil Fertility Recommendations - Pounds per 1,000 Square Feet												
Intended Crop	Yield Goal	Previous Crop	Lime	Nitrogen N	Phosphate P ₂ O ₅	Potash K₂O	Magnesium Mg	Sulfur S	Zinc Zn	Manganese Mn	Iron Fe	Copper Cu	Boron B
Lawn - Maintenance Broadleaf Shrubs			0	4 4	1 2	1 1	0						

Report reviewed and approved by our professional agronomy staff.

Sample TS-2: LAWN - Split the recommended amount into 3-4 applications during a growing season.

Sample TS-2: LAWN - The soil pH is high (alkaline soil) and may cause chlorosis (yellowing) of the grass. Apply an iron-containing fertilizer 2 to 3 times per year to improve color.

Sample TS-2: SOLUBLE SALTS - VERY LOW - Salinity effects mostly negligible.



3505 Conestoga Dr. Fort Wayne, IN 46808 260.483.4759 algreatlakes.com

To: JOB SITE SERVICES 4395 WILDER RD BAY CITY, MI 48706

Attn: NATE HEHIR

For: OMC WAUKEGAN 9605 136TH AVE

P.O. Number:

Date Received: 07/01/2020

Date Reported: 07/06/2020 Page: 1 of 1

REPORT OF ANALYSIS

Lab Number	Sample ID	Analysis	Result	Unit	Method
37991	TS-1	Sand	35	%	Bouyoucos 1962
		Silt	34	%	Bouyoucos 1962
		Clay	31	%	Bouyoucos 1962
		Soil Textural Classification	Clay Loam		USDA-NRCS
37992	TS-2	Sand	31	%	Bouyoucos 1962
		Silt	38	%	Bouyoucos 1962
		Clay	31	%	Bouyoucos 1962
		Soil Textural Classification	Clay Loam		USDA-NRCS



Account Number: 99990 Page: 1 of 4

								Accour	nt Nun	nber: 999	90 Page	e: 1 of 4		
					Soil Test	t Repor	t							
	Rep	orted To			Samp	ple Inform				Cust	omer Informa	tion		
IOR S	ITE SERV	ICES		Rep	ort Number	-	183-0116			004634	A L II/F C A A I			
	WILDER			Rep	ort Date		2020				AUKEGAN			
	CITY, MI			Lab	Number	3799	91			9605 136TH AVE BRISTOL WI				
<i>D</i> , (1 C	, . .	10700		Sam	ple ID	TS-1				BRISTO	_ VVI			
				То В	Be Grown	LAW	'N - <mark>MAIN</mark>	TENAN	ICE					
					Analysis	Result	S							
		Analysis			Dogult				S	oil Test Ratir	-			
		Analysis			Result	•	Very Low	Lo	w	Medium	High	Very High		
	ic Matte		45 . \		3.9									
			y-1 Equiv.)		26									
	sium, ppi				155 540				الا الد د د سی					
	esium, p _l m, ppm (1550									
	m, ppm N				9									
			y, meq/10	Ωσ	12.9									
pH	LACITATIE	sc capacit	y, 1110q/ 10	og	6.9			-						
-	le Salts (1	L:2), mmh	o/cm		0.3									
	, ppm S	,,	<u> </u>		7									
	opm Zn				2.8									
	opm Fe				23									
	anese, p	om Mn			43									
	er, ppm C				1.6									
	, ppm B				0.9									
				Anr	nual Nutrien	t Requi	irement							
		Pounds per :	100 Square Feet				ı	Pound	s per 1	,000 Square F	eet	•		
Lime	Nitrogen	Phosphorus (P2O5)	Potassium (K2O)	Magnesiu	m Sulfur (S)	Lime	Nitrogen (N)	Phospho (P2O5		Potassium (K2O)	Magnesium	Sulfur		
0	(N) 0.4	0.1	0.1	(Mg) 0.0	0.0	0	4	1		1	(Mg) O	(s) O		
	0.4	0.1	0.1					-	-	1	0			
		NDK		Sugg	ested Fertil	izer Ap	plication							
	Fe	NPK ertilizer			Description					Annua	l Application Ra	te		
	(Grade							lb:	s per 100 sq. f	t. Ibs per	1,000 sq. ft.		
Product	t 28	-2-3	Complete	Lawn F	ertilizer					1.4	QR 14	.0		
										0.0	QR 0	0.0		
					Comr	nents_								
Use t	he fertiliz	er listed a	bove or ar	nother n	naterial of s	imilar N	NPK analy	sis. Sp	lit th	e recomr	nended an	nount		

See Fact Sheet #10, Interpretive Guide, located on our website, for an explanation of soil test results.

into at least 3 applications over the growing season. Apply 1/3 in the early spring, late spring and early fall.

Water well after each application.



Account Number: 99990 Page: 2 of 4

					Account N	Number: 999	90 Page	e: 2 of 4
		Soil Test						
Reported To			le Inform			Cust	omer Informa	tion
JOB SITE SERVICES		t Number	-	.83-0116		\perp \sim \sim	'AUKEGAN	
4395 WILDER RD		t Date		2020			AUKLGAN B6TH AVE	
BAY CITY, MI 48706		umber	3799	91		BRISTO		
	Sampl		TS-1	N CTAR	NI ICI IN A E		_	
	То Ве	Grown		N - E <mark>STAE</mark>	SLISHIVIE	I <mark>N I</mark>		
		Analysis	Result	5		0.41=		
Analysis		Result		Very Low	Low	Soil Test Ratii Medium	ng High	Very High
Organic Matter, %		3.9						
Phosphorus, ppm P (Bray-1 Equiv.)		26						
Potassium, ppm K		155						
Magnesium, ppm Mg		540						
Calcium, ppm Ca		1550						
Sodium, ppm Na		9						
Cation Exchange Capacity, meq/100	g	12.9						
рН		6.9						
Soluble Salts (1:2), mmho/cm		0.3						
Sulfur, ppm S		7						
Zinc, ppm Zn		2.8						
Iron, ppm Fe		23						
Manganese, ppm Mn		43						
Copper, ppm Cu		1.6						
Boron, ppm B		0.9						
	Annu	ual Nutrient	Requi	rement		1,000.5		
Pounds per 100 Square Feet Nitrogen Phosphorus Potassium	Magnesium	Sulfur		Nitrogen	Pounds p Phosphoru	er 1,000 Square F	Magnesium	Sulfur
Lime (N) (P2O5) (K2O)	(Mg)	(S)	Lime	(N)	(P2O5)	(K2O)	(Mg)	(S)
0 0.2 0.2 0.2	0.0	0.0	0	2	2	2	0	0
	Sugge	sted Fertili	zer Ap	plication				
NPK Fertilizer		Description				Annua	l Application Ra	te
Grade		, , , , , , , , , , , , , , , , , , ,				lbs per 100 sq. f	t. Ibs per	1,000 sq. ft.
Product 12-12-12 Complete I	<mark>Fertilizer</mark>	r				1.7	OR 17	<mark>'.0</mark>
						0.0	QR C	0.0
		Comm	ents					
Use the fertilizer listed above or and	other ma	aterial of si	milar N	NPK analy	sis. Appl	y and incor	porate the	

recommended amount into the soil before seeding. Do not apply additional fertilizer until the new lawn is

rooted and growing well.



Account Number: 99990 Page: 3 of 4

								Account	Number: 999	90 Page	e: 3 of 4		
					Soil Test	Repor	t						
	Rep	orted To			Samp	le Inform			Cust	omer Informa	tion		
JOB SI	TE SERV	ICES		Repo	oort Number F20183-0116					ONAC VALALIKEC AND			
	WILDER			Repo	ort Date	+	2020			OMC WAUKEGAN 9605 136TH AVE			
	TY, MI			Lab	Number	3799			BRISTO				
	, , , , , , , , , ,				ple ID	TS-2				L VVI			
				То В	e Grown	LAW	'N - <mark>MAIN</mark>	TENANO	CE)				
					Analysis	Result	S						
		Analysis			Result		Very Low	Low	Soil Test Ratin	ng High	Very High		
Organi	c Matte	r, %			4.8								
			y-1 Equiv.)		29								
	ium, ppi				158								
	sium, p				690								
	n, ppm				1900								
	n, ppm N				9								
			ty, meq/10	0g	15.7								
рН					7.1								
Soluble	e Salts (1	L:2), mmh	no/cm		0.2								
Sulfur,	ppm S				8								
Zinc, p	pm Zn				3.0								
Iron, p	pm Fe				20								
Manga	nese, pj	om Mn			41								
Copper	r, ppm C	<u>Cu</u>			1.9								
Boron,	ppm B				1.0								
				Ann	ual Nutrient	t Requi	irement						
			100 Square Feet				I	1	per 1,000 Square F		<u> </u>		
Lime	Nitrogen (N)	Phosphorus (P2O5)	Potassium (K2O)	Magnesiu (Mg)	m Sulfur (S)	Lime	Nitrogen (N)	Phosphor (P2O5)	us Potassium (K2O)	Magnesium (Mg)	Sulfur (S)		
0	0.4	0.1	0.1	0.0	0.0	0	4	1	1	0	0		
				Sugg	ested Fertili	zer Ap	plication						
		NPK ertilizer			Description				Annua	l Application Ra	ite		
		Grade			Description				lbs per 100 sq. f	t. lbs per	1,000 sq. ft.		
Product	28	-2-3	Complete	Lawn Fo	ertilizer				1.4	QR 14	<mark>I.O</mark>		
									0.0	QR C).0		
					Comm	nents							
lise th	e fertili-	er listed	ahove or an	other n	naterial of si	milar N	JPK analy	sis Spli	t the recomr	mended an	nount		
		Let listed	above of al	iotrici II	idecital of 31	·	th it dilaly	. Jpii	t the recoill		i ou i c		

See Fact Sheet #10, Interpretive Guide, located on our website, for an explanation of soil test results.

into at least 3 applications over the growing season. Apply 1/3 in the early spring, late spring and early fall.

Water well after each application.



Account Number: 99990 Page: 4 of 4

								Accoun	t Num	ber: 999	90 Page	e: 4 of 4	
					Soil Test								
	Rep	orted To				le Inform				Custo	omer Informa	tion	
JOB SI	ITE SERV	ICES		Rep	ort Number F20183-0116					ONC WALKEGAN			
	WILDER				ort Date	+	2020			OMC WAUKEGAN 9605 136TH AVE			
BAY C	CITY, MI	48706			Number	3799				BRISTOL			
	,				ple ID	TS-2				וטוכווום	_ VVI		
				To B	Be Grown		'N - <mark>ESTAI</mark>	<u> SLISHIV</u>	ENI				
					Analysis	Result	S						
		Analysis			Result		Very Low	Lo		oil Test Ratir Medium	ng High	Very High	
Organ	ic Matte	r, %			4.8								
Phosp	horus, p	pm P (Bra	y-1 Equiv.)		29								
	sium, ppi				158								
Magne	esium, p	pm Mg			690								
Calciu	m, ppm	Ca			1900								
Sodiur	m, ppm ľ	Na			9								
Cation	Exchan	ge Capaci	ty, meq/10	Og	15.7								
рН					7.1								
Solubl	e Salts (2	L:2) <i>,</i> mmh	io/cm		0.2								
Sulfur,	, ppm S				8								
Zinc, p	pm Zn				3.0								
Iron, p	pm Fe				20								
Manga	anese, p	om Mn			41								
Coppe	er, ppm C	Cu			1.9								
Boron	, ppm B				1.0								
				Anr	nual Nutrient	t Requi	irement						
			100 Square Feet		Pounds per 1				s per 1,	.000 Square F	eet		
Lime	Nitrogen (N)	Phosphorus (P2O5)	Potassium (K2O)	Magnesiu (Mg)	m Sulfur (S)	Lime	Nitrogen (N)	Phospho (P2O5)		Potassium (K2O)	Magnesium (Mg)	Sulfur (S)	
0	0.2	0.2	0.2	0.0	0.0	0	2	2		2	0	0	
				Sugg	ested Fertili	zer Ap	plication						
	E	NPK ertilizer			Description					Annua	l Application Ra	te	
		Grade			Description				lbs	per 100 sq. f	t. lbs per	1,000 sq. ft.	
Product	: 12	-12-12	Complete	Fertiliz	er					1.7	OR 17	'.O	
										0.0	QR C	0.0	
					Comm	nents							
Use th	he fertili	er listed	ahove or ar	other r	naterial of si	milar N	NPK analy	sis An	nly a	nd incor	norate the		
030 11						ur I	. Kanaly		٠,٨ ٥		· · · · ·		

See Fact Sheet #10, Interpretive Guide, located on our website, for an explanation of soil test results.

recommended amount into the soil before seeding. Do not apply additional fertilizer until the new lawn is

rooted and growing well.



3505 Conestoga Dr. Fort Wayne, IN 46808 260.483.4759 algreatlakes.com

To: JOB SITE SERVICES 4395 WILDER RD BAY CITY, MI 48706

Attn: NATE HEHIR

For: OMC WAUKEGAN 9605 136TH AVE

P.O. Number:

Date Received: 07/01/2020

REPORT OF ANALYSIS

Date Reported: 07/06/2020 Page: 1 of 1

		ILI OIL	I OI AINALISIS		
Lab Number	Sample ID	Analysis	Result	Unit	Method
37991	TS-1	Sand	35	%	Bouyoucos 1962
		Silt	34	%	Bouyoucos 1962
		Clay	31	%	Bouyoucos 1962
		Soil Textural Classification	Clay Loam		USDA-NRCS
37992	TS-2	Sand	31	%	Bouyoucos 1962
		Silt	38	%	Bouyoucos 1962
		Clay	31	%	Bouyoucos 1962
		Soil Textural Classification	Clay Loam		USDA-NRCS

From: Hayes, Noah
To: Chris Martin
Subject: RE: Starter Fertilizer

Date: Friday, July 24, 2020 8:37:49 AM

Attachments: image004.png

image013.png image014.png image028.png image029.png

Good morning Chris,

Application for the following rates of the starter fertilizer:

- 22-3-11 = (3) 50lb bags per Acre
- (13-25-12 = (3.5) 50lb bags per Acre

Thank you,



Noah Hayes

Account Manager
I.S.A. Certified Arborist IL-9741A
610 W Liberty St. | Wauconda, IL 60084
D: (224) 283-4061 | O: (847) 487-3674

If our quality and customer service has met or exceeded your expectations, please consider sharing a positive review on...





Get our latest updates on...





From: Chris Martin <cmartin@jssmi.com> Sent: Wednesday, July 22, 2020 4:12 PM

To: Hayes, Noah <noah.hayes@acresgroup.com>

Subject: RE: Starter Fertilizer

Noah,

Thanks Noah,

22-3-11

Uflexx, 3% Fe, 4% Mn GUARANTEED ANALYSIS

Total Nitrogen (N)	22.0%
1.2% Ammoniacal nitrogen	
20.8% Urea nitrogen*	
Available Phosphate (P ₂ O ₅)	3.0%
Soluble Potash (K ₂ O)	11.0%
Iron (Fe)	3.0%
Manganese (Mn)	4.0%

<u>Plant foods derived from:</u> Urea, Diammonium Phosphate and Muriate of Potash. Iron derived from Iron Oxy-Sulfate. Manganese derived from Manganese Oxy-Sulfate.

*11.0% nitrogen stabilized with dicyandiamide and N-(n-butyl) thiophosphoric triamide.

Directions for use: This bag will cover up to 14,000 sq. ft. of turf.

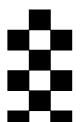
395-2430

awardpoly



Professional Turf Fertilizer





13-25-12

GUARANTEED ANALYSIS

9.75% Ammoniacal Nitrogen 3.25% Urea Nitrogen*

 Available Phosphate (P2O5)
 25.00%

 Soluble Potash (K2O)
 12.00%

Derived from: Urea, Polymer Coated Urea, Ammonium Phosphate, Muriate of Potash

*3.0875% slowly available urea nitrogen from polymer coated urea

APPLICATION RATES:

Lbs. of Product per 1,000 sq. ft.	Lbs. of Product per Acre	Square Feet per 50# Bag (1000s)	Lbs N per 1,000 sq. ft.	Lbs P per 1,000 sq. ft.	Lbs K per 1,000 sq. ft.	
3.00	130.7	16.67	0.39	0.75	0.36	
4.00	174.2	12.50	0.52	1.00	0.48	
5.00	217.8	10.00	0.65	1.25	0.60	

Apply during the growing season at the above rates in intervals no earlier than one month.

SPREADER SETTINGS:

Recommended Approximate Settings for 1 lb. of Phosphate per 1,000

Perma-Green Ultra high 4.25	Clycone/Spyker 4.5
Perma-Green Ultra low 3.75	Vicon 4.5 mph 28
Lesco # 15	Lely 4.5 mph 4 1/2
Lesco letter F	

APPLICATION PRECAUTIONS:

- Keep away from pools, ponds, etc. Do not contaminate potable water.
- Avoid application in high wind conditions to prevent drift and uneven distribution of fertilizer.
- Do not apply with drop-type spreader.
- Many plant nutrients can cause staining of sidewalks. Sweep walkways prior to irrigation. Walkways should be dry at time of application.



KEEP OUT OF REACH OF CHILDREN CAUTION

Harmful if swallowed Do not inhale NET WEIGHT: 50 LBS. (22.68 Kg.)

MSDS# 01-017

Attachment 3 Requests for Information

Request for Information Log

Waukegan Harbor OU1 Wetland Construction Waukegan, Illinois

RFI No.	Status	Subject	Submitted Date	Author	Date Response Received	Response Author	Disposition Date	Disposition Author	Request	Reply	Disposition Provided	Additionaly Reply
1	Closed	Topsoil testing	6/26/2020	Hehir	6/27/2020	Seaman	6/28/2020	Hehir	JSS will collect 2 samples concurrently for 700 CY of topsoil; stockpile will be dedicated to the project.	This approach is acceptable. JSS will coordinate with the Jacobs Quality Assurance Manager to allow for inspections of the borrow source upon request, per paragraph 2.04 G.	Concur	N/A
2	Closed	Training requirements	7/1/2020	Hehir	7/6/2020	Seaman	7/7/2020	Hehir	Request for compaction tester to only require 24-hr OSHA HAZWOPER training. Requesting clarfication of the training requirements for fence installation. JSS assumes that installing fence will not lead to exposure and can be mitigated with direction supervison of HAZWOPER trainied staff, please clarify the requirement for this task.	24-hour HAZWOPER training for the density tester is acceptable. JSS will provide the direct one day of actual field experience with the understanding that he should stay out of the active work areas where earthwork is occurring unless he is conducting a test. HAZWOPER training would not be required for the fence installers so long as JSS's staff with 40-hour HAZWOPER training manage any spoils generated during fence post installation and mitigate the potential for the fence installers to come into contact with subsurface soils.	Concur	N/A
3	Closed	Muskrat fence	7/7/2020	Hehir	7/8/2020	Seaman	7/13/2020	Hehir	Galvanized T-Posts are not readily available. JSS recommends installation of a 5' steel painted T-Post as an alternate. Additionaly, due to safety and constructability concerns, JSS recommends use of a fence topper in place of cutting a 45 dgree wedge out of the Tpost and bending. JSS assumes the 1" x1" stucco wire mesh is a 20-gauge poultry fence. The size is available in 48" and 60" roll heights. Please verify if the proposed wire mesh is acceptable and specify the desired roll height. Please see attached proposed product submittals.	Galvanized posts are preferred for corrosion resistence. Note that if toppers are being used (instead of cutting and bending posts), then the T-post shape is not necessary. Toppers are available to match typical fence posts. The 1" x 1" 14-gauge galvanized wire mesh is necessary to prevent muskrats from chewing through the fence; the thinner 20-gauge poultry fence is not adequate. Please make sure to reference the conformed documents and stamped drawings for construction, which no longer reference stucco wire mesh. If roll sizes are large than the height specified on the drawing, then cut the mesh to fit, curl extra material into the trench, or excavate the trench deeper. Alternatively, smaller roll heights may be overlapped inside the trench to meet the specified 54" height requirement of the wire mesh.	mesh 60" tall. 2" galvanized fence pipe 5' posts and 2" 45 degree fence toppers will be used. The fabric will be fastened every 6 inches above grade and trenched into the ground on a slightly off-set angle based on the orignal	N/A
4	Closed	Fence post coating	7/8/2020	Hehir	7/12/2020	Seaman	7/13/2020	Hehir	Paragraph 2.03 5a requires a that posts have protective Zinc Coating: ASTM F 1043, Type A external and internal. If posts meet ASTM F 1043 and have a factory applied external clear coat do they still require the embedment coating? See reference in paragraph 3.02 C which states coating the portion of galvanized post that is to be imbeded in concrete and extend coating one inch above top of concrete. If required please specify embedment coating.	The proposed Midwest Tube Mills MT40 meets the ASTM F1043 specification, but it is unclear if it meets the ASTM F1043 "Type A" requirement, or if it meet ASTM F1083. Confirm with Midwest Tube Mills that the product meets: (1) ASTM F1043 "Type A" external and internal (2) ASTM F1083 (3) ASTM A1011/1011M. Midwest Tube Mills can provide a letter on their letterhead confirming these are met or can provide a more detailed data sheet confirming these requirements. The embedment coating is still required because it adds corrosion prevention at the air-to-soil transition interface. Refer to Midwest Tube Mills MT40 manufacturer for their recommendation on a material compatible for use over their vacuum sealed clear coat for the buried post portion and post extending at least one inch above the top of the concrete.	s proposed pipe meets the specifications. Midwest Tube does not provide a recommendation for embedment coating. If a embedment coating is desired JACOBS will need to specify what should	posts is feasible and adequate enough to be embedded in concrete without needing to
5	Closed	Cascade inlet construction	7/8/2020	Hehir	7/8/2020	Seaman	7/8/2020	Hehir	The current desin shows crest stones placement via grouted butt-joint with a 6" steep drop. Since the stones are irregular shaped dimension and current butt joint design could have expansion/contraction (varying warm cold climate) and breaking of grout joints allowing water through the joint edges, JSS recommends stacking the crest stones with an overlap and revised footer support as shown on the attached sketch. Please verify if the proposed approach is acceptable	This approach is acceptable. Maintain minimum channel bottom of 24" and minimum cascade drop height of 8", as shown on proposed sketch. Note that the opening must be capable of fitting the waterfall spillway product (26" Atlantic FastFalls Model 110869 or approved equal capable of flowing 6,000 GPH); field adjustments may be necessary.	Concur	N/A
6	Closed	Concrete slab	7/10/2020	Hehir	8/5/2020	Seaman	8/5/2020	Hehir	JSS has prepared a cost for breaking an uncovered concrete slab (22 wide x 14' long x 3' thick) and staging to a location adjacent to the berm. Cost for concrete loading, transportation, disposal, and characaterization are not included. JSS is seeking a change order in the amount of \$12,997.11 to perform the concrete removal and placement outside the berm area.	JSS's proposed cost of \$12,997.11 has been determined to be fair and reasonable based on an independent cost estimate. The agreement price of JSS's contract will be revised accordingly. This work has been authorized to proceed.	Concur	N/A

Request for Information Log

Waukegan Harbor OU1 Wetland Construction Waukegan, Illinois

RFI No.	Status	Subject	Submitted Date	Author	Date Response Received	Response Author	Disposition Date	Disposition Author	Request	Reply	Disposition Provided	Additionaly Reply
7	Closed	Fence realignment	7/12/2020	Seaman	7/13/2020	Hehir	7/13/2020		Documentation of increased costs due to fence realignment around the electrical equipment and pad. The total quantity of chain-link fence is increased from 169 to 210 linear feet using the proposed alignment. The total quantity of privacy slats is increased from 1,352 to 1,920 square feet. These quantities would be invoiced at the contract unit rate of \$91/LF and \$3.85/SF for line items 11 and 12, respectively. Please provide the increase in costs due to the fence extension in accordance with the contract unit rates.	JSS will invoice the additional fence and pricvacy slats at the existing contract unit rates: Increase in fence price 41 LF @ \$91/LF = \$3,731.00 Increase in privacy slats price 568SF @ \$3.85/SF=\$2,186.80 Total Increase \$5,917.80	Concur	N/A
8	Closed	Muskrat fence gate	7/14/2020	Hehir	7/15/2020	Seaman	7/17/2020		JSS is seeking additional information pertaing to the Muskrat Proof Gate detailed in section 1 of the Notes. Please provide deisred gate dimensions, constrution details and installation location. JSS assumes this will need to be custom fabricated and requests additional information before fabricating.	See attached construction details.	Concur	N/A
9	Retracted	Goose scare tape	7/17/2020	Hehir	N/A	N/A	N/A		JSS hase concrens with the propsed scare tape design from a constuctability approach. The current design calls for installation of twinmonafilment lines with 6"x6" black plastic flag panels attached. The requested material appears to be too heavy unsupported over the proposed 200'+LF installation span. We have concerns with the material sagging the lines and /the flagging cracking and breakingin during inclement weather. JSS recommends replacement of the black plastic panels with a lighter relective tape that is self adhesive and designed as a goose replleant. See attached website for example tape: https://www.nixalite.com/product/repeller-ribbon. Please verify the amount/spacing of tape to be installed per line, specify monafilament line size and confirm that monafilment lines can support the tape unsupported across the wetland.	N/A	N/A	N/A
9A	Closed	Goose scare tape	7/29/2020	Hehir	7/29/2020	Williams	Concur		JSS hase concrens with the propsed scare tape design from a constuctability approach. The current design calls for installation of twin monafilment lines with 6"x6" black plastic flag panels attached. JSS has spent signifcant effort attempting to located the black flag panels and has been unsuccesful to this point. As an alternate, JSS is proposing replacement of the black plastic panels with a lighter relective tape that is self adhesive and designed as a goose replleant. See attached website for example tape: https://www.nixalite.com/product/repeller-ribbon Based on availability, the material my need to be sourced from several vendors as shown in the attachcments. Attached: 1. Photos of goose tape to be used.	The installation of the monofilament line has been agreed on by Jacobs and JSS field management staff to install as designed in the construction drawings. The construction drawing has a reference drawing to the installation of the 6"x6" black flag panels but has no reference to placement spacing or quantity requirements. The Jacobs field management team agrees with the proposed replacement of reflective scare tape and would request the reflective deterent tape be placed at a minmum of 24" of tape spaced out over every 50 LF of monofilament north / south gridline placement and alternating every other gridline moving east to west .	Concur	N/A
10	Closed	Fertilizer pellets for wetland plants	7/30/2020	Hehir	8/2/2020	Seaman	Concur		JSS recomends eliminating the fertilizer from the planting requirements based on statements from Tallgrass Restoration concerning the addition of 10-10-10 fertilizer at planting time.	It is acceptable to forego use of the fertilizer pellets specifically when planting the wetland plants. Fertilizer is still required as a topsoil amendment based on the soil testing results.	Concur	N/A
11	Retracted	Schedule and Cost Impacts	8/3/2020	Seaman	8/4/2020	Hehir	N/A		Requested pricing and schedule impacts from JSS due to changed conditions at the site, mostly related to removal, loading, transportation, and disposal of concrete, misc debris, and unsuitable soils/vegetation.	JSS provided cost proposal for items.	N/A	N/A

Request for Information Log

Waukegan Harbor OU1 Wetland Construction Waukegan, Illinois

RFI No.	Status	Subject	Submitted Date	Author	Date Response Received	Response Author	Disposition Date	Disposition Author	Request	Reply	Disposition Provided	Additionaly Reply
11A		Schedule and Cost Impacts	8/5/2020	Seaman	8/6/2020	Hehir	8/21/2020		Requested pricing and schedule impacts from JSS due to changed conditions at the site, mostly related to removal, loading, transportation, and disposal of concrete, misc debris, and unsuitable soils/vegetation. Added increase to bonds and insurance.	waste stream using the Optional Bid Item 10 unit rate of \$35/ton per Jacobs request to dispose of this material at the landfill. JSS will incurr additional trucking and tipping fee expense as compared to the alternate Bid Item 5b clearing and grubbing disposal rate which accounted for disposal at a local	Concur - CH2M has determined that the costs are fair and reasonable based on an independent cost estimate. Change orders were issued to JSS to increase the agreement price by \$30,137.97 (Agreement Revision 06) and \$42,573.85 (Agreement Revision 07) for a total increase of \$72,711.82.	N/A
12A		Chain-link fence design change	9/8/2020	Seaman	9/16/2020	Hehir	10/15/2020		Due to the shallow depth of the West Containment Cell HDPE liner, which is also present beneath the asphalt area, the chain-link fence cannot be installed as shown on Sheet 12. CH2M has re-designed the fence installation details to include reinforced concrete footers to a maximum depth of 18 inches and a reduction of privacy slats to 50% coverage. Based on proposed modifications from the fence installer, CH2M has updated the fence design. A revised version of Sheet 12, a fence layout plan with surface finishes, structural concrete specifications, post-installed anchors, and metal fabricating specifications are attached. Pre-existing asphalt removed for installation and soil not reused must be disposed at an offsite landfill. The subcontractor may use existing waste profiles that have been reviewed and approved assuming that the same disposal facility will be used. Excavated soils may be reused as compacted fill, similar to installation of the HPDE discharge line. CH2M is requesting that JSS provide the impacts to project costs and schedule as a result of the design change.	11-14. The attached proposal is for excavation, concrete, asphalt, disposal and restoration services. Pricing for cold weather concrete/asphalt installation not included. Based on the revised design the estimated cost is \$141,274.69.	EPA has elected not to perform the work of installing the chain-link fence, which corresponds to base bid line items 11 through 14 (\$24,684) and fence items (\$5,917.80) in Change Order 1.	N/A



Project On Name/Description:	OMC Waukegan Harbor Site, OU	RFI	No.:	001	Date Submitted: 6/26/20		
•	CW-2134200/ EP-S5-06-01	Pro	,	Jacobs: 692199CH JSS: SC-2139			
To:	Jennifer Seaman	Project Manager					
	Name			Title			
From:	Nate Hehir			Project Ma	nager		
	Name			Title			
	RE	FERE	NCES				
Document (Work Plan, Scope o	f Work, etc.):		Specification	ons			
Drawing(s)/Specification (L	Orawing No, Specification No., etc.):		32 91 13				
Detail/Section (Page No., Sect	ion No., Paragraph No., etc.):		4, 2.04 D				
Discipline (Architecture, Electr	ical, Mechanical, Chemical, Hydrogeology, et	tc.):	Chemical-	Source Quality Contro	1		
POTENTIAL IMPACT	: Cost Schedu	ule 🛭	Activ	vity/Task Impacted: Bo	porow Source/Topsoil Sampling		
REQUEST	The anticipated quantity of topsoil adhering to one sample per 500 CY collect both samplesat the borrow s analytical results. JSS will request to project so that it is dedicated to pro-	source of the top	e quality conton the same soil provided the sample	ntrol requirements. JSS day to avoid delays to r set-aside the required es represent the conten	S is requesting approval to the schedule by waiting on lab I quantiy of topsoil for the ts of the dedicated pile.		
Requested By: (Name/Company/Title)	Nate Hehir/Job Site Services/ Proje	ect Mar	nager	Response Requested	by Date: 6/29/20		
REPLY:	This approach is acceptable. Note that the Jacobs Quality Assuration at some point during the properties of the propert						
Responded By: (Name/Company/Title)	Jennifer Seaman Project Manager - Jacobs			Date of Response:	06/27/2020		
RESPONSE DISPOSITION/ CONCURRENCE:	Concurr						
Response Dispositioned / Cone With By: (Name/Company/Title)	3	anager		Date Response Dispo	ositioned 6/28/20		
FURTHER ACTIONS RI	EQUIRED: NONE						
REVIEW DISTRIBUTIO	N	FINA	L DISTRII	BUTION			
☐ CH2M HILL PM ☐		□СН	2M HILL PM				
☐ CH2M HILL CM ☐		⊠ CH2	2M HILL CM				
☐ CH2M HILL QC ☐	☐ Project Files	⊠ CH2	2M HILL QC		□ Project Files		



Name/Description:	JMC Waukegan Harbor Site, OU	RFI No.:	002	Date Submitted: //1/20				
	CW-2134200/ EP-S5-06-01	Project No:	SC-2139					
To:	Jennifer Seaman Name	•	Project Manager Title					
From:	Nate Hehir		Project Manager					
riom.	Name		Title	_				
	REI	FERENCES						
Document (Work Plan, Scope of	f Work, etc.):	Scope of	Work					
Drawing(s)/Specification (I	Orawing No, Specification No., etc.):	Training I	Requirements					
Detail/Section (Page No., Sect	ion No., Paragraph No., etc.):	Response	to Bidder Questions					
Discipline (Architecture, Electr	ical, Mechanical, Chemical, Hydrogeology, etc	.): Training I	Requirements					
POTENTIAL IMPACT	: Cost Schedu	le 🛭 Act	ivity/Task Impacted: Co	ompaction Testing/Fence				
REQUEST	JSS is seeking approval to provide a 24hr OSHA HAZWOPER training. understanding that he should stay o conducting a test. JSS is seeking clarification of the trafence will not lead to exposure and estaff, please clarify the requirement	JSS will provide ut of the active v aining requireme can be mitigated	the direct one day of ac work areas where earthw nts for fence installation	ctual field experience with the work is occurring unless he is 1. JSS assumes that installing				
Requested By:	;,,		Response Requested	by Date: 7/2/20				
(Name/Company/Title)	Nate Hehir/Job Site Services/ Project Manager							
REPLY:	24-hour HAZWOPER training for the earthwork areas unless conducting at HAZWOPER training would not be HAZWOPER training manage any sfor the fence installers to come into	test, as stated all required for the spoils generated	fence installers so long during fence post install	as JSS's staff with 40-hour				
Responded By: (Name/Company/Title)	Jennifer Seaman / Jacobs Site Manager		Date of Response:	07/06/20				
RESPONSE DISPOSITION/ CONCURRENCE:	CONCURR							
Response Dispositioned / Cond With By: (Name/Company/Title)	3	nager	Date Response Dispo	ositioned 7/7/20				
FURTHER ACTIONS RI	EQUIRED: NONE							
REVIEW DISTRIBUTIO)N	FINAL DISTR	IBUTION					
☐ CH2M HILL PM ☐		☑ CH2M HILL PM						
☐ CH2M HILL CM ☐		CH2M HILL CM	I 🗆					
☐ CH2M HILL QC ☐	Project Files	⊠ CH2M HILL QC		☐ Project Files				



Project On Name/Description:	OMC Waukegan Harbor Site, OU	RFI No.:	003	Date Submitted: 7/7/20		
•	CW-2134200/ EP-S5-06-01	Project No:	SC-2139			
То:	Jennifer Seaman Name		Project Ma Title	_		
From:	Nate Hehir		Project Ma	_		
	Name RE	FERENCES	Title			
Document (Work Plan, Scope o		Drawing	s			
Drawing(s)/Specification (L	Orawing No, Specification No., etc.):	Muskrat	Fence Detail- 1			
Detail/Section (Page No., Sect	ion No., Paragraph No., etc.):	P01 She	et 9 of 12			
Discipline (Architecture, Electr	ical, Mechanical, Chemical, Hydrogeology, et	c.): Animal	Control			
POTENTIAL IMPACT	: Cost Schedu	ule 🛭 A	ctivity/Task Impacted: N	Iuskrat Fence Detaile		
REQUEST	JSS is seeking additional informatic available, and are imported from C painted T-Post as an alternate. Add use of a fence topper in place of curx1" stucco wire mesh is a 20gauge verify if the proposed wire mesh is proposed product submittals.	HINA as longe itionaly due to sting a 45 dgree poultry fence.	lead items. JSS recomme afety and constructability wedge out of the Tpost a The size is available in 43	ends installation of a 5' steel by concerns, JSS recommends and bending. JSS assumes the 1" 8" and 60" roll heights. Please		
Requested By: (Name/Company/Title)	Nate Hehir/Job Site Services/ Proje	ct Manager	Response Requested	by Date: 7/8/20		
REPLY:	Galvanized posts are preferred for cutting and bending posts), then the fence posts.					
	fence; the thinner 20-gauge poultry	ed wire mesh is necessary to prevent muskrats from chewing through the ultry fence is not adequate. Please make sure to reference the conformed ags for construction, which no longer reference stucco wire mesh.				
	If roll sizes are larger than the height into the trench, or excavate the trench to meet the specified 54"	ch deeper. Alte	natively, smaller roll hei			
Responded By: (Name/Company/Title)	Jennifer Seaman, Project Manager CH2M		Date of Response:	7/8/20		
RESPONSE DISPOSITION/ CONCURRENCE:	JSS will provide a 14-gauge galvan 45 degree fence toppers will be use into the ground on a slightly off-se	d. The fabric w	ll be fastened every 6 in	ches above grade and trenched		
Response Dispositioned / Cond With By: (Name/Company/Title)	curred Nate Hehir/JobSite Service	es/Project Mana	ger Date Response Disp Concurred With:	ositioned 7/13/20		
FURTHER ACTIONS RI	EQUIRED: NONE					
REVIEW DISTRIBUTIO	N	FINAL DISTI	RIBUTION			
☐ CH2M HILL PM ☐ Design	n Team	☑ CH2M HILL P	М			
☐ CH2M HILL CM ☐		⊠ CH2M HILL C	М			



Project Name/Description:	OMC Waukegan Harbor Site, OU	RFI No.:	003	Date Submitted: 7/7/20
☐ CH2M HILL QC ☐	☐ Project Files	☐ CH2M HILL QC		Project Files



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1" x 1" WELDED MESH

PRODUCT NUMBER	MESH	WIRE GAUGE	PRODUCT SIZE	UNIT	WEIGHT PER UNIT	UNIT CU. FT.	UNIT W" x D" x H"	UNIT PER PALLET	UPC CODE
108024100	1" x 1"	14	24" x 100'	1	81	3.67	16.25 x 16.25 x 24	9	697803114357
108036100	1" x 1"	14	36" x 100'	1	122	5.5	16.25 x 16.25 x 36	9	697803114555
108048100 -	1" × 1"	14	48" x 100'	1	162	7.34	16.25 x 16.25 x 48	9	697803114654
108060100	1" x 1"	14	60" x 100"	1	202	9.17	16.25 x 16.25 x 60	9	697803114753
106324100	1" x 1"	16	24" x 100'	1	48	2.72	14 x 14 x 24	9	697803116351
106336100	1" × 1"	16	36" x 100'	1	73	4.08	14 x 14 x 36	9	697803116559
106348100	1" x 1"	16	48" x 100'	1	97	5.44	14 x 14 x 48	9	697803116658
106360100	1" × 1"	16	60" x 100'	1	121	6.81	14 x 14 x 60	9	697803116757
106372100	1" × 1"	16	72" x 100'	1	145	8.17	14 x 14 x 72	9	607803116856

1/2" x 1" WELDED MESH

PRODUCT NUMBER	MESH	WIRE GAUGE	PRODUCT SIZE	UNIT	WEIGHT PER UNIT	UNIT CU. FT.	UNIT W" x D" x H"	UNIT PER PALLET	UPC CODE
11/210618025	1/2" x 1"	16	18" x 25'	1	13	0.75	8.5 x 8.5 x 18	30	697803516236
11/210624025	1/2" x 1"	16	24" x 25'	1	17	1.00	8.5 x 8.5 x 24	30	697803516335
11/210618100	1/2" x 1"	16	18" x 100'	1	52	- 2.04	14 x 14 x 18	9	697803516250
11/210624100	1/2" x 1"	16	24" x 100'	1	70	2.72	14 x 14 x 24	9	697803516359
11/210630100	1/2" x 1"	16	30" x 100'	1	90	3.40	14 x 14 x 30	9	697803516458
11/210636100	1/2" x 1"	16	36" x 100'	1	110	4.08	14 x 14 x 36	9	697803516557
11/210648100	1/2" x 1"	16	48" x 100'	1	150	5.44	14 x 14 x 48	9	697803516656

1" x 1/2" WELDED MESH - GALVANIZED AFTER WELDED

PRODUCT NUMBER	MESH	WIRE GAUGE	PRODUCT SIZE	UNIT	WEIGHT PER UNIT	UNIT CU. FT.	UNIT W" x D" x H"	UNIT PER PALLET	UPC CODE
1/2106241001	1" x 1/2"	16	24" x 100'	1	80	3.00	14 x 14 x 24	9	697803506350
1/2106301001	1" x 1/2"	16	30" x 100'	1	100	3.20	14 x 14 x 30	9	697803506459
1/2106361001	1" x 1/2"	16	36" x 100'	1	120	4.28	14 x 14 x 36	9	697803506558
1/2106481001	1" x 1/2"	16	48" x 100'	1	160	5.60	14 x 14 x 48	9	697803506657

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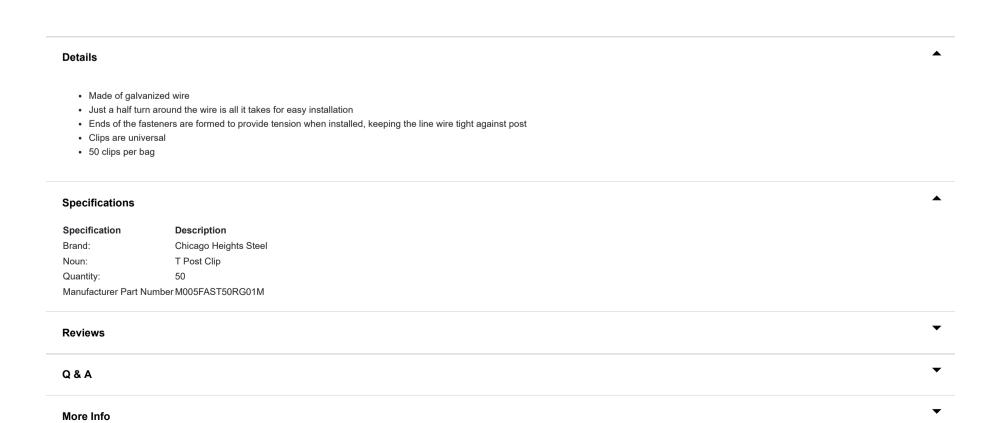


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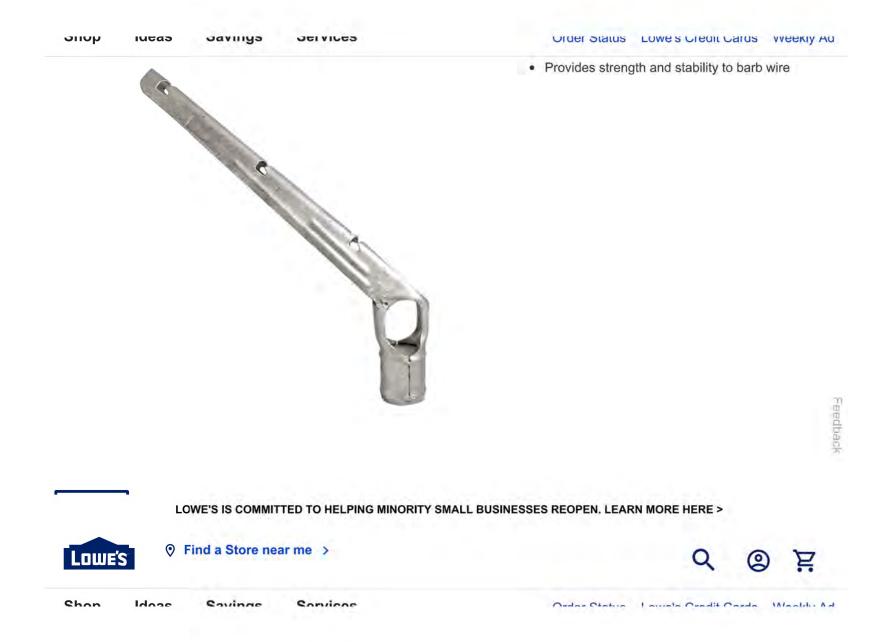


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- · Increases height of fence by 12-in
- Fence fitting used to hold barb wire in position

· Galvanized to provide strength and superior corrosion resistance

Specifications

Series Name	N/A	For Use With	Chain-link fence	
Manufacturer Color/Finish	Galvanized	Туре	Barbed wire arm	
Color/Finish Family	Silver	Primary Material	Metal	
Package Quantity	1			

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Galvanized Metal Fence Frame Hinge Chain-link Fence No Reviews

2-3/8-IN GATE HDWE SET SGL WALK

**** 35

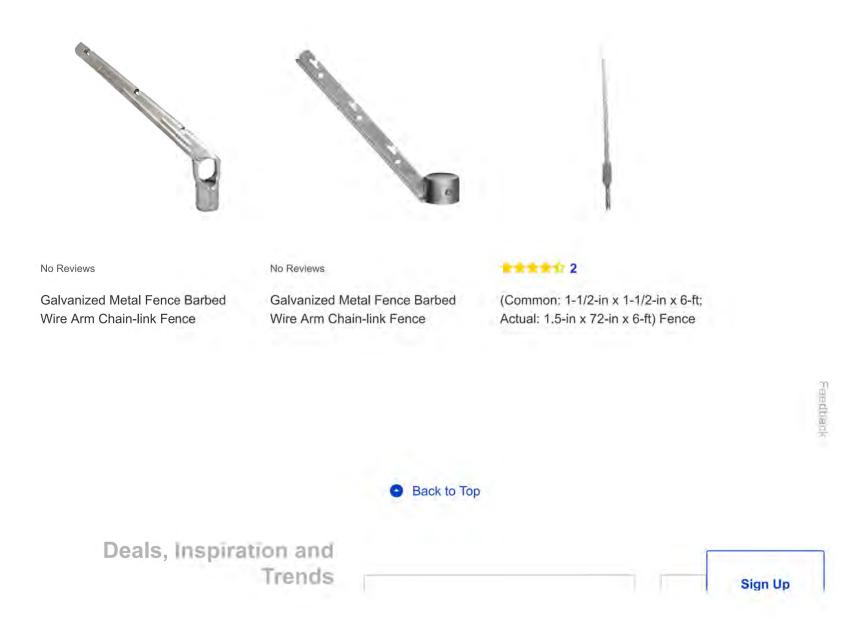
(Common: 4-ft x 12-ft; Actual: 4-ft x 11.5-ft) Galvanized Steel Chain-Link Fence Gate

No Reviews

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Feedback

PREVIOUSLY VIEWED



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Feedback



NOTICE: Offerors must acknowledge receipt of this amendment in writing, by the date and time specified for proposal submissions or the revised Due Date below (if revised), whichever is later. If your acknowledgment is not received at the designated location by the specified date and time your offer may be rejected. If, by virtue of this amendment you wish to change your offer, such change must make reference to the solicitation and this amendment.

	I. AME	NDMENT						
SOLICITATION NO.	SOLICITATION DATE	AMENDMENT NO.	AMENDMENT DATE					
2139	4/23/20	01	05/11/20					
ISSUED BY AND RETURN T	то:	DUE DATE This amendment does not change the date by which offers are due unless a date and time is inserted belo						
9191 So. Jamaica Street Englewood, CO 80112 Attn: Lynn Roberts, Procu	urement Representative	DATE TIME 05/18/20 10:00 am CST						
DESCRIPTION OF AMENDM	IENT							
Wetlands Construction se	rvices/supplies for the Wauke	gan Harbor project located	l Waukegan, IL.					
Bidder Questions and Ans	wers.							
RFP 2139 Bidder Question	ns_Answers							
RFP 2139 Bidder Question GW_elevations		e solicitation remain unchar	nged and in full force and effec					
RFP 2139 Bidder Question GW_elevations	, all terms and conditions of the	e solicitation remain unchar						
	, all terms and conditions of the II. ACKNOWLEDGN acknowledgment by facsimile o	IENT OF AMENDMENT						
RFP 2139 Bidder Question GW_elevations Except as provided herein Complete and return this a	, all terms and conditions of the II. ACKNOWLEDGN acknowledgment by facsimile of the offer.	IENT OF AMENDMENT						
RFP 2139 Bidder Question GW_elevations Except as provided herein Complete and return this athe award form submitted	, all terms and conditions of the II. ACKNOWLEDGN acknowledgment by facsimile of the offer.	r mail within 2 days of rece						
RFP 2139 Bidder Question GW_elevations Except as provided herein Complete and return this athe award form submitted	, all terms and conditions of the II. ACKNOWLEDGN acknowledgment by facsimile of the offer.	IENT OF AMENDMENT						
RFP 2139 Bidder Question GW_elevations Except as provided herein Complete and return this athe award form submitted	, all terms and conditions of the II. ACKNOWLEDGN acknowledgment by facsimile owith the offer.	r mail within 2 days of rece						

RFP SC 2139 Waukegan Harbor Wetlands Construction US EPA Region 5 EP-S5-06-01

Bidders Questions / Answers

CH2M's responses are in blue below

- 1. Per the Solicitation and Offer, CH2M indicates in B.3 Subcontract award that CH2M will award to the offer who presents the best value. Then further on in Section C.1 it states this is an LPTA. Please confirm this is an LPTA procurement.
 - The RFP will use the Lowest Price Technically Acceptable (LPTA) criteria to evaluate the proposals.
- 2. The SOW state that GW is 3 ft below ground surface. Please reference GW level in elevation in correlation to design drawing elevations. Also please provide date at which GW elevation was collected and provide GW elevation expectations during the sited construction period.
 - Groundwater elevation data, including dates measured, for monitoring wells around the work area are provided in the attached table.
- 3. SOW Erosion Control states that subcontractor is to prepare a SWPPP for the work. Even though CERCLA allows permit equivalent and cost for permits are waived, does Lake County need to review and approve the SWPPP?
 - SWPPP is to be provided to Lake County as a courtesy. Approval from Lake County is not required.
- 4. SOW Restoration/Maintenance. Please confirm if there is potable water available at the site? No potable water is available at the site.
 - Subcontractor will need to arrange with City for a hydrant to be used as a source of potable water
- 5. SOW Restoration/Maintenance. Is subcontractor responsible replacement of all Sod/plugs/shrubs for 1 year? If replacement plants are installed, does the warranty start again for 1 year?
 - Subcontractor to warranty sod, wetland plants, and shrubs for 12 months after installation whether it is the original installation or replacement.
- 6. SOW Training Requirements Please confirm the statement that <u>All</u> on-site workers performing work under this scope are required to have Hazwoper training?
 - Site-workers involved in activities that may result in exposure to contaminated media are required to have HAZWOPER training. Workers onsite only occasionally for a specific limited task (such as, but not limited to, land surveying) and who are unlikely to be exposed over permissible exposure limits and published exposure limits need the minimum of 24-hours of offsite instruction, and the minimum of one day actual field experience under the direct supervision of a trained, experienced supervisor. Landscaper laying sod over the clean topsoil does not need to be HAZWOPER trained.
- 7. Please provide area of the wetland where topsoil is to be placed?
 - Topsoil is required for areas proposed to be sodded, this includes the wetland embankment from elevation 585 and up on the inside as well as the downstream embankment.

- 8. SOW Subcontractor H&S: This section states that CH2M has prepared a HASP. This section also goes on to suggest that subcontractor may work under CH2M HASP. Other documents provided in the RFP package indicate that a Subcontractor is required to prepare a site-specific HASP and will be reviewed by CH2M, please provide clarification.
 - Subcontractors can work under CH2M's HASP and just submit their AHAs for the work they are performing.
- 9. SOW Subcontractor PM/HSE Site Visits. Please confirm CH2M is requiring subcontractor to perform Site Audits and provide CH2M a copy of these audits and cost for these audits shall be included in the cost to perform the work?
 - Based on the scope of the work, the Subcontractor is not required to perform site audits.
- SOW Schedule. What date does CH2M expect to Award the subcontract?
 Estimated award date is May 22, 2020.
- 11. Please indicate the length of time subcontractor should include in the proposal schedule for CH2M to provide review and approval for the following pre-construction submittals:
 - a. Subcontractor signed agreement execution, H&S training certifications, Drug testing, H&S prequalification questionnaire, SWPPP, Project Maintenance Plan, Survey Plan, Waste Management Plan, Confirmation Sampling Plan, Corporate H&S Plan, Site Specific HYS Plan, AHA's, QCP, Transportation and Disposal Plan, and all other Plans, that are found in the specifications?
 - CH2M is committed to providing comments within 5 days of receipt.
- 12. 01 31 13-3 Construction Photographs please confirm it is a requirement of this solicitation to provide Professional Photographer (approved by CH2M) to capture pre -construction, progress and post construction during the work both on-ground and Ariel? If so, what line item should the cost be applied?
 - A professional photographer (approved by CH2M) or aerial photography will not be required.
- 13. There are several plans noted in reference to Transportation and disposal plans, Waste Management Plans, Analytical Characterization Testing Plans, Confirmation Testing Plan, that are due prior to starting work. We understand there are options for pricing to handle these situations if encountered, but could you please provide guidance as to what these plans will include if it is unknown what wastes will be encountered?
 - The Waste Management Plan (WMP) is identify the types of waste that will be generated during the work and describe how that waste will be managed. The WMP is to be submitted prior to starting work. Plans that refer to contaminated materials were included as a contingency in the event such materials are encountered; those plans are not required prior starting work. If contaminated material is encountered the specific plans and content will be coordinated through an RFI and a possible change order.
- 14. The SOW document states the inlet pipe (inlet to the wetland) will flow into a pre-cast concrete box and then flow down the cascade inlet. The drawings show a concrete head wall to anchor the inlet pipe to the cascade inlet system. Please clarify.
 - The plans have been revised to include pre-fabricated solution. See sheet CO4.

- 15. Project Coordination 01 31 13-2 and 3 indicates relocation of work will be necessary, also goes on to state that relocation of existing structures etc. will require relocation. Please indicate what utilities and or structures require removal and replacement?
 - Anticipated utility relocation/adjustment is listed on DWG C-05. The Subcontractor is responsible for verifying site conditions and coordinating with CH2M on additional structures and utilities that may require relocations should site conditions reveal differing conditions.
- 16. Submittal Procedures, 01 33 00-3, F 2. Please confirm Jacobs will be able to provide response to Subcontractor submittals sooner than 5 days if requested? Please also confirm that upon review of subcontractor revisions, only review of the subcontractor revision will be performed. Information previously submitted will be will stand as approved.
 - CH2M will work with the Subcontractor complete reviews of submittals in a timely manner. However, we cannot guarantee a turnaround quicker than 5 days. The Subcontractor should take every opportunity to support quick turnaround by prioritizing the submittals based on construction activities, providing a schedule of anticipated submittal dates, and proactive coordination to help streamline the submittal approval process.
- 17. The list of submittals seems to change and or in conflict between the SOW, Compensation Schedule, and the Specifications, will Jacob please provide a comprehensive list of submittals Jacobs expects to receive for performance of the work? Please confirm this comprehensive list that is provided would supersede those that are stated within the specifications.
 - The Subcontractor should include the assumptions relative to the required submittals in their proposal. CH2M will review the selected Subcontractor's submittal register upon receipt.
- 18. Specification 01 50 00-4. Is the subcontractor to provide Contractor with temp environmental controlled jobsite trailer, and temp electrical power?
 - A separate trailer for CH2M staff is not required. However, CH2M requests that staff be provided some space in Subcontractor's trailer.
- 19. 01 57 13 -1 and 2. Please confirm the compensation schedule accounts for all Topsoil and seeding units to accommodate the quantities per the specification section as written.
 - Top soil is to be placed through all areas that are intended to be sodded. Final grades listed are to the top of sod unless otherwise stated. Seeding is s temporary measure for restoration of areas disturbed by construction activities and other work incidentally disturbed during the project.
- 20. 01 57 13 -4 Where should temporary seeding be installed and at what quantity? Under what line item should Temp seeding cost be placed?
 - Temporary seeding may be used as restoration of disturbed areas or as a temporary erosion control method. Temporary seeding should be applied to disturbed areas outside of the wetland footprint as a part of site restoration. Subcontractor should evaluate extent that is believed will be disturbed by their operations to evaluate the amount of seeding required.
- 21. Specification 02 61 00 Seems to implement several requirements that are unknown or not represented within the scope of work or compensation schedule. Please clarify, aside from the disposal of discharge piping, what Jacobs expects the subcontractor to encounter during the performance of the work?

This specification section is for items potentially encountered incidental to the construction work. If unforeseen conditions are encountered the subcontractor should communicate with CH2M as soon as possible.

22. 31 10 00-3 Please confirm Clearing and grubbing debris and strippings unsuitable for topsoil are to be disposed off-site?

Yes, the clearing and grubbing debris and strippings unsuitable for topsoil are to be properly disposed of off-site in accordance with Waste Management Plan.

23. 31 23 13-2 State keep subgrade free of water. Please confirm the subcontractor is to maintain GW elevations at elevation below the 581 elevations to perform work?

Groundwater elevations for monitoring wells in the vicinity of the wetland on various dates are provided in the attached table. The Subcontractor must be able to keep the area of work in a condition suitable to allow them to meet the line and grade as shown on the contract documents, including relevant wetland plantings. Specification 31 23 16 Excavation describes management of water from excavations. Subcontractor is to submit filtration means and methods. The SWPPP is to comply with applicable Illinois Urban Manual Practice Standards including Code No. 813 Dewatering.

24. 31 23 13 -2, 3.02 Compaction B. Please clarify the requirement.

Part 3.02A was revised to "Under Earthfill: Compact upper 12 inches to minimum of 95 percent relative compaction as determined in accordance with ASTM D698 (Standard Proctor)."

Part 3.02B was deleted.

31 23 16-1 Will dewatering and control of groundwater elevation be required? Groundwater elevations for monitoring well in the vicinity of the wetland on various dates are provided in the attached table. The Subcontractor must be able to keep the area of work in a condition suitable to allow them to meet the line and grade as shown on the contract documents, including relevant wetland plantings. Specification 31 23 16 Excavation describes management of water from excavations. Subcontractor is to submit filtration means and methods. The SWPPP is to comply with applicable Illinois Urban Manual Practice Standards including Code No. 813 Dewatering.

25. 31 23 23-3 Earth Fill – Please confirm off-site general fill is not required for the performance of this work?

Correct, no imported fill is expected for the work.

26. 32 93 10-8 Please confirm if groundwater elevations exist at elevations above 581, that the contractor will be required to have the ability to lower the elevation of the groundwater to perform the work?

Groundwater elevations for monitoring well in the vicinity of the wetland on various dates are provided in the attached table. The Subcontractor must be able to keep the area of work in a condition suitable to allow them to meet the line and grade as shown on the contract documents, including relevant wetland plantings. Specification 31 23 16 Excavation describes management of water from excavations. Subcontractor is to submit filtration means and methods. The SWPPP is to comply with applicable Illinois Urban Manual Practice Standards including Code No. 813 Dewatering.

- 27. 32 93 10-8 3.03 Preparation for planting C. Please confirm subcontractor is to place imported topsoil into the wetland planting areas.
 - Top soil is to be placed over the areas that are intended to be sodded. Final grades listed are to the top of sod unless otherwise stated.
- 28. In lieu of sod placement on embankments, would Jacobs be amenable to contractors simply following the restoration requirements for "seeding new lawns" in the plans under section 32 92 00?
 - Based on project timeline, sod placement will be required.
- 29. The plugs identified for wetlands plantings are specified as 4" x 4" minimum size, while industry standard is typically roughly 2" x 2" plugs. Our nursery said it could be feasible to upsize the material, but that would take 6-10 weeks and they would need to know by May 18th for materials to be available and planted by the July 10th project end date. Suggest allowing plantings in 2" plugs (32's, 38's, or 50's) based on the aggressive project schedule.
 - It is the intent of the design to install 4-inch plugs, 1.5 feet on center. However, if availability of this size plug is a problem, CH2M may consider the installation of 2-inch plugs planted 1 foot on center.
- 30. What is the purpose of the muskrat fence to keep muskrats entirely out of the area or just keep them from digging into the bank? The muskrat detail specs a 1" x 1" Stucco wire mesh. While we have no problem finding standard 1" x 1" wire mesh, we are finding it difficult to locate 1" x 1" wire mesh with Stucco. Can you provide additional detail on what is meant by Stucco wire mesh? Is the reference simply to the wire mesh typically used during the application of Stucco on buildings, or is Stucco to be a component of the system?
 - The specified mesh is a Stucco Wire Mesh commonly used in the installation of Stucco, but the mesh itself does not have Stucco. Just need the wire mesh. The material used should be 14-gauge finished galvanized 1"x1" fence so that the muskrats cannot bite through it and that it does not rust.
- 31. While the SOW clearly states that the Contractor Quality Control Manager can only serve in this function, there is no information provided regarding the Site Superintendent and Site Safety and Health Officer. Can the SS also serve as the SSHO?
 - The Subcontractor's Site Superintendent can also serve as the Site Safety and Health Officer provided, they meet training requirements.
- 32. Regarding Site H&S Training requirements: Please clarify "Minimum of three days of documented HAZWOPER field experience OR Minimum 1-day on-the-job training for 24-hour HAZWOPER trained workers) (i.e., "3-day on-the-job training")" Does this mean that a subcontract employee in a non-supervisory role meets site H&S access requirements if they have completed the 24-hour HAZWOPER plus attend 1-day of site-specific on-the-job training?
 - Site-workers involved in activities that may result in exposure to contaminated media are required to have HAZWOPER training. Workers onsite only occasionally for a specific limited task (such as, but not limited to, land surveying) and who are unlikely to be exposed over permissible exposure limits and published exposure limits need the minimum of 24-hours of offsite instruction, and the minimum of one day actual field experience under the direct supervision of a trained, experienced supervisor. Landscaper laying sod over the clean topsoil does not need to be HAZWOPER trained.

33. If a subcontractor is to perform a major scope of work on the project, can their qualifications be used to demonstrate relevant experience for proposal section 2.0 Experience and Past Performance?

Yes, total team experience can be used

34. With the proposal due date less than 1 week after the Q&A due date, EQM requests that Jacobs please consider a 1-week extension to the proposal due date (5/20/20) to allow subcontractors to properly review and address answers to questions.

Based on the schedule to complete the construction, CH2M agrees to a proposal due date of Monday, May 18, NLT than 10 AM CST.

Water Level Elevations Waukegan Harbor

		16	-Jun	16	-Sep	16-	Dec	18-	-Mar	Au	g-18	Ма	r-19	Ma	ıy-19	Se _l	p-19	Dec	c-19
	Top of Casing	Depth to		Depth to		Depth to		Depth to		Depth to		Depth to		Depth to		Depth to		Depth to	
	elevation	Water	Elevation	Water	Elevation	Water	Elevation	Water	Elevation	Water	Elevation	Water	Elevation	Water	Elevation	Water	Elevation	Water	Elevation
Well	(feet)	(feet)	(Ft amsl)	(feet)	(Ft amsl)	(feet)	(Ft amsl)	(feet)	(Ft amsl)	(feet)	(Ft amsl)	(feet)	(Ft amsl)	(feet)	(Ft amsl)	(feet)	(Ft amsl)	(feet)	(Ft amsl)
OMC-MW-600D	587.66	4.85	582.81	4.75	582.91	5.2	582.46	12.25 ^a	575.41	4.82	582.84	3.63	584.03	3.62	584.04	3.09	584.57	3.47	584.19
OMC-MW-600S	587.61	4.56	583.05	4.65	582.96	5.15	582.46	4.75	582.86	4.73	582.88	3.57	584.04	3.55	584.06	3.03	584.58	3.39	584.22
OMC-MW-601D	587.35	4.53	582.82	4.62	582.73	5.05	582.3	4.58	582.77	4.52	582.83	3.51	583.84	3.42	583.93	2.88	584.47	3.22	584.13
OMC-MW-601S	587.50	4.59	582.91	4.71	582.79	5.13	582.37	4.67	582.83	4.7	582.80	3.63	583.87	3.56	583.94	2.97	584.53	3.35	584.15
OMC-MW-602D	587.14	4.12	583.02	4.5	582.64	4.51	582.63	4.32	582.82	4.35	582.79	3.26	583.88	3.11	584.03	2.69	584.45	3.03	584.11
OMC-MW-602S	586.88	3.9	582.98	4.2	582.68	4.54	582.34	4.17	582.71	4.15	582.73	3.03	583.85	2.91	583.97	2.45	584.43	2.8	584.08
OMC-MW-603D	586.84	4.68	582.16	4.9	581.94	5.7	581.14	4	582.84	4.1	582.74	2.89	583.95	2.73	584.11	2.36	584.48	2.73	584.11
OMC-MW-603S	587.22	4.09	583.13	4.5	582.72	4.81	582.41	4.34	582.88	4.42	582.80	3.01	584.21	3.10	584.12	2.73	584.49	3.15	584.07
OMC-MW-604S	586.85	3.75	583.1	4.33	582.52	4.55	582.3	4.15	582.70	4.21	582.64	3.13	583.72	2.94	583.91	2.23	584.62	2.6	584.25
OMC-MW-614D	587.25	5.92	581.33	5.03	582.22	4.9	582.35	4.2	583.05	4.5	582.75	3.29	583.96	3.11	584.14	2.81	584.44	3.16	584.09
OMC-MW-614S	587.29	4.15	583.14	4.72	582.57	4.9	582.39	4.35	582.94	4.52	582.77	3.34	583.95	3.22	584.07	2.76	584.53	3.19	584.10
OMC-MW-621D	588.87	6.49	582.38	5.93	582.94	6.4	582.47	5.86	583.01	6.05	582.82	4.82	584.05	4.72	584.15	4.05	584.82	4.64	584.23
OMC-MW-621S	588.87	5.95	582.92	5.89	582.98	6.37	582.5	5.9	582.97	6.11	582.76	4.12	584.75	4.78	584.09	4.3	584.57	4.38	584.49

^ameasurement suspect



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Details

Build a durable, quality fence in no time with this studded T Post. Rugged and easy to drive into any terrain, this T Post will not disappoint. Check with your local Tractor Supply Co. store about volume discounts.

- Features an angled stud that helps hold the fence against the post
- The large anchor plate provides greater holding power
- Posts are finished with enamel for rust resistance above and below ground
- Includes 5 clips

Specifications

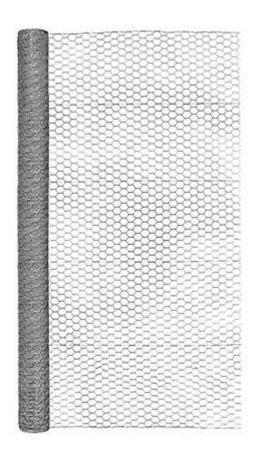
Description **Enamel Paint** Steel 1.25 lb. **Bulk Discount** T Post Manufacturer Part Number 5' 1.25# GRN

Reviews

Specification Finish: Material: Lb. Per Foot: Shop By: Noun:

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60 in. x 50 ft. Poultry Netting with 1 in. Mesh, 166050 SKU: 362710299





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Item Information

Details

60 In. x 50 ft 20 gauge galvanized poultry netting features a 1 In. hexagonal mesh weave and is both lightweight and durable. This is an extremely versatile product that can be used for a number of applications, including animal containment, temporary fences, chicken coups and cages, and craft projects. It provides great protection and support for plants, erosion control, and compost containment. Poultry netting is an economical solution that is easy to install and alter to meet your needs.

- Constructed of 20 gauge woven steel wire
- Roll is 60in H x 50ft L
- Features a 1in classic hexagon shape openings
- Woven wire is galvanized prior to welding for added strength, durability, and corrosion resistance
- Ideal for fencing applications, animal containment, cages, gutter guards, gardening applications, compost bins, crafts, and much more
- Lightweight, flexible design makes roll easy to use for a number of applications, and be altered to meet your needs
- For fencing applications, use with u-posts or t-posts (sold separately) to complete your project

Specifications

Specification Description

CountryofOrigin: Imported

Shape: Hexagonal grid

Application/Use: Fencing applications

Material: Steel
Fastener Type: N/A
Additional Item(s) Included: None
Tensile Strength: N/A

Finish: Galvanized Product Weight: 18.96 lb. Product Height: 60 in. Part Number: 166050 Product Width: 5 in. Compatibility: N/AAnimal Compatibility: N/APackage Quantity: 1

Contact Type Allowed: None Product Length: 50 ft.

Fencing Type: Poultry Netting

Manufacturer Part Number 166050

Laurent, Sharon/MKE

From: Seaman, Jennifer/CHC

Sent: Thursday, July 9, 2020 3:36 PM

To: Nate Hehir

Williams, Fred/IDA; Andrae, Bill/MKE; Randy White; Ryan Jepson; Chris Martin Cc:

Subject: RE: Waukegan OMC-RFI 003 Muskrat Fence

Attachments: RFP 2139 Amendment 01.pdf

Yes, it does.

Please refer to solicitation amendment (response to bidder questions) where we clarified the mesh material – question #30.

Thanks,

Jennifer

From: Nate Hehir <nhehir@jssmi.com> Sent: Thursday, July 9, 2020 3:00 PM

To: Seaman, Jennifer/CHC < Jennifer. Seaman@jacobs.com>

Cc: Williams, Fred/IDA <Fred.Williams@jacobs.com>; Andrae, Bill/MKE <William.Andrae@jacobs.com>; Randy White

<rwhite@jssmi.com>; Ryan Jepson <rjepson@jssmi.com>; Chris Martin <cmartin@jssmi.com>

Subject: [EXTERNAL] RE: Waukegan OMC-RFI 003 Muskrat Fence

Importance: High

Jennifer

I was able to locate a source for the 14ga fence, which has been very difficult to locate. Can you please verify if the attached product submittal meets the requirements for the muskrat fence fabric? I would like to order this material today so we don't lose out on the availability.

Thanks,

Nate Hehir, CPG

Senior Project Manager



Email nhehir@jssmi.com | Main 989-671-3318 | Cell 989-370-9006 | Fax 989-671-3316 4395 Wilder Rd., Bay City, MI 48706 | jssmi.com

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From: Seaman, Jennifer/CHC < Jennifer. Seaman@jacobs.com>

Sent: Wednesday, July 8, 2020 10:40 PM

To: Nate Hehir < nhehir@jssmi.com>

Cc: Williams, Fred/IDA < Fred.Williams@jacobs.com; Andrae, Bill/MKE < Williams.Andrae@jacobs.com; Randy White

<rwhite@jssmi.com>; Ryan Jepson <rjepson@jssmi.com>; Chris Martin <cmartin@jssmi.com>

Subject: RE: Waukegan OMC-RFI 003 Muskrat Fence

Nate,

Attached is the response to RFI 003. Please respond with disposition.

Thanks,

Jennifer

From: Nate Hehir < nhehir@jssmi.com>
Sent: Tuesday, July 7, 2020 2:07 PM

To: Seaman, Jennifer/CHC < Jennifer. Seaman@jacobs.com>

Cc: Williams, Fred/IDA < Fred. Williams@jacobs.com >; Andrae, Bill/MKE < William. Andrae@jacobs.com >; Randy White

<rwhite@jssmi.com>; Ryan Jepson <rjepson@jssmi.com>; Chris Martin <cmartin@jssmi.com>

Subject: [EXTERNAL] Waukegan OMC-RFI 003 Muskrat Fence

Jennifer,

Please see attached RFI-003 related to the Muskrat Fence Detail.

Thanks.

Nate Hehir, CPG Senior Project Manager



Email nhehir@jssmi.com | Main 989-671-3318 | Cell 989-370-9006 | Fax 989-671-3316 4395 Wilder Rd., Bay City, MI 48706 | jssmi.com

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Project Name/Description:	OMC Waukegan Harbor Site, OU	RFI No.: 0		004	Date Submitted: 7/8/20	
	CW-2134200/ EP-S5-06-01	Pro	ject No:	SC-2139		
То:	Jennifer Seaman Name			Project Ma Title		
From:	Nate Hehir Name			Project Ma Title	_	
		ERE	NCES	1100		
Document (Work Plan, Scope of	of Work, etc.):		Specificat	ions		
Drawing(s)/Specification (I	Orawing No, Specification No., etc.):		32 31 13			
Detail/Section (Page No., Sect	ion No., Paragraph No., etc.):		8,3.02 C	and 4, 2.03 A.5		
Discipline (Architecture, Electr	rical, Mechanical, Chemical, Hydrogeology, etc.):	Fencing			
POTENTIAL IMPACT:	Cost Schedule Activity/Task Impacted: Chain Link Fence Installation					
REQUEST	Paragraph 2.03 5a requires a that posts have protective Zinc Coating: ASTM F 1043, Type A external and internal. If posts meet ASTM F 1043 and have a factory applied external clear coat do they still require the embedment coating? See reference in paragraph 3.02 C which states coating the portion of galvanized post that is to be imbedded in concrete and extend coating one inch above top of concrete. If required please specify embedment coating.					
Requested By: (Name/Company/Title)	Nate Hehir/Job Site Services/ Project Manager Response Requested by Date: 7/9/20					
REPLY:	The proposed Midwest Tube Mills Methods the ASTM F1043 "Type A" requirement that the product meets:					
	(1) ASTM F1043 "Type A" external	and	internal			
	(2) ASTM F1083					
	(3) ASTM A1011/1011M.					
	Midwest Tube Mills can provide a le detailed data sheet confirming these			erhead confirming these	e are met or can provide a more	
	The embedment coating is still require interface. Refer to Midwest Tube Mi compatible for use over their vacuum least one inch above the top of the co	lls M n sea	IT40 manu led clear co	facturer for their recomi	mendation on a material	
Responded By: (Name/Company/Title)	Jennifer Seaman/Jacobs, Project Man Jerome Griffin/Jacbos, Corrosion Pra	_		Date of Response:	7/12/20	
RESPONSE DISPOSITION/ CONCURRENCE:	See attached response from Midwest not provide a recommendation for enneed to specify what should be used.	nbed				
Response Dispositioned / Concurred Nate Hehir/JSS/ Project Manager With By: (Name/Company/Title)			Date Response Dispo	ositioned 7/13/20		



Project Name/Description:	OMC Waukegan Harbor Site, OU	RFI No.:	004	Date Submitted: 7/8/20				
FURTHER ACTION	S REQUIRED:		PROVIDE ADDITIONAL INFORMATION FROM MIDWEST TUBE MILLS					
REPLY:	The current Duratop ACW coating manufactured on the MT Midwest fence posts is feasible and adequate enough to be embedded in concrete without needing to place an additional coating on top of it along the below grade encapsulated region. See attached letter. Therefore, no additional coating will be needed. The Duratop ACW coating is along the entire surface of the fence post, so the protective coating provided will extend beyond the one-inch spec requirement, with the coating extending outside the air-to-concrete transition/interface zone.							
Responded By: (Name/Company/Title)	Jennifer Seaman/Jacobs, Project Mana Jerome Griffin/Jacbos, Corrosion Prac	_	Date of Response:	07/16/2020				
REVIEW DISTRIBUTION	FINAL DISTRIBUTION							
☐ CH2M HILL PM	Design Manager	☐ CH2M HILL	РМ 🔲					
☐ CH2M HILL CM ☐	☐ Coatings specialist	CH2M HILL	СМ 🗆					
☐ CH2M HILL QC ☐	☐ Project Files	CH2M HILL	QC □	☐ Project Files				



Project On Name/Description:	OMC Waukegan Harbor Site, OU	RFI No	.: 0	005	Date Submitted: 7/8/20	
•	CW-2134200/ EP-S5-06-01	Project	No: S	SC-2139		
То:	Jennifer Seaman Name			Project Ma Title	nager	
From:	Nate Hehir			Project Ma Title	nager	
	Name RE	FERENCE	S	Title		
Document (Work Plan, Scope o	f Work, etc.):	Dr	awings			
Drawing(s)/Specification (L	Orawing No, Specification No., etc.):	Ca	scade Inle	et Details		
Detail/Section (Page No., Sect	ion No., Paragraph No., etc.):	C0	4, 2 Casc	ade Profile		
Discipline (Architecture, Electr	ical, Mechanical, Chemical, Hydrogeology, et	c.): Ca	scade In	lete Construction		
POTENTIAL IMPACT: Cost Schedule Activity/Task Impacted: Cascade Inlet Construction						
REQUEST	The current desin shows crest stones placement via grouted butt -joint with a 6" steep drop. Since the stones are irregular shaped dimension and current butt joint design could have expansion/contraction (varying warm cold climate) and breaking of grout joints allowing water through the joint edges, JSS recommends stacking the crest stones with an overlap and revised footer support as shown on the attached sketch. Please verify if the proposed approach is acceptable					
Requested By: (Name/Company/Title)	Nate Hehir/Job Site Services/ Project Manager Response Requested by Date: 7/9/20				by Date: 7/9/20	
REPLY:	This approach is acceptable. Maintain minimum channel bottom of 24" and minimum cascade drop heig of 8", as shown on proposed sketch. Note that the opening must be capable of fitting the waterfall spillw product (26" Atlantic FastFalls Model 110869 or approved equal capable of flowing 6,000 GPH); field adjustments may be necessary.				of fitting the waterfall spillway	
Responded By: (Name/Company/Title)	Jennifer Seaman, Project Manager CH2M			Date of Response:	7/8/20	
RESPONSE Concurr DISPOSITION/ CONCURRENCE:						
Response Dispositioned / Cone With By: (Name/Company/Title)	3	anager/		Date Response Dispo	ositioned 7/9/20	
FURTHER ACTIONS RI	EQUIRED: NONE					
REVIEW DISTRIBUTIO	N	FINAL I	ISTRIB	UTION		
☐ CH2M HILL PM ☐	CH2M Design Manager	⊠ СН2М Н	IILL PM			
☐ CH2M HILL CM ☐		⊠ СН2М І	IILL CM			
☐ CH2M HILL QC ☐	Project Files	⊠ СН2М І	IILL QC		□ Project Files	



Project Name/Description		JMC wauk	tegan Harbor Site, OU	KF	I No.:	006	Date Sui	bmitted: //10/20	
Contract/TO No:		CW-213420	00/ EP-S5-06-01	Pro	ject No:	SC-2139			
То:		J	ennifer Seaman Name	L		Project M Tit	_		
From:			Nate Hehir			Project M	I anager		
			Name			Tit	le		
			RE	FERE	NCES				
Document (Work Pla	an, Scope oj	Work, etc.):			Specificat	ions			
Drawing(s)/Specif	ication (D	rawing No, S	pecification No., etc.):		31 10 00				
Detail/Section (Pag	ge No., Secti	on No., Parag	graph No., etc.):		1.01 B				
Discipline (Architec	ture, Electri	cal, Mechanio	cal, Chemical, Hydrogeology, etc	:.):	Site Clear	ing/Berm Construction	n		
POTENTIAL I	MPACT	: (Cost Schedu	ile [⊠ Act	ivity/Task Impacted:	Clearing/Gr	rubbing	
While clearing and grubbing an unforseen concrete slab not represented on the drawings was encountered. The concrete slab appears to be approximately 22' W x 14'L x 3' thick. The observed concrete elevation is 585.32. The slab is directly within the proposed berm alignment. JSS was advised to remove the concrete prior to constructiong the berm. JSS has prepared a cost for breaking the concrete and staging to a location adjacent to the berm. Cost for concrete loading, transportation, disposal, and characaterization are not included. JSS is seeking a change order in the amount of \$12,997.11 to perform the concrete removal and placement outside the berm area.						concrete elevation is remove the concrete d staging to a location terization are not			
Requested By: (Name/Company/Title)		Nate Hel	nir/Job Site Services/ Proje	ect Ma	nager	Response Requeste	ed by Date:	7/11/20	
REPLY:		cost estin					ed to be fair and reasonable based on an independent will be revised accordingly. This work has been		
Responded By: (Name/Company/Title)		Jennifer S Project M	Seaman/CH2M Sanager			Date of Response:		8/5/20	
RESPONSE DISPOSITION/ CONCURRENCE	RESPONSE Concurr								
Response Dispositio With By: (Name/Com		curred]	Nate Hehir/JSS/Project Ma	inger		Date Response Dis Concurred With:	positioned	8/5/20	
FURTHER ACT	IONS RE	QUIRED	NONE						
REVIEW DISTR	IBUTIO	N		FINA	L DISTRI	BUTION			
☐ CH2M HILL PM	⊠ Cost e	stimator		□СН	2M HILL PM				
☐ CH2M HILL CM				□СН	2M HILL CM				
⊠ CH2M HILL QC			Project Files	□СН	2M HILL QC			Project Files	



Environmental Construction & Site Remediation

Job Site Services

Project: OMC Waukegan Change Order: 001 Date: 7/10/20

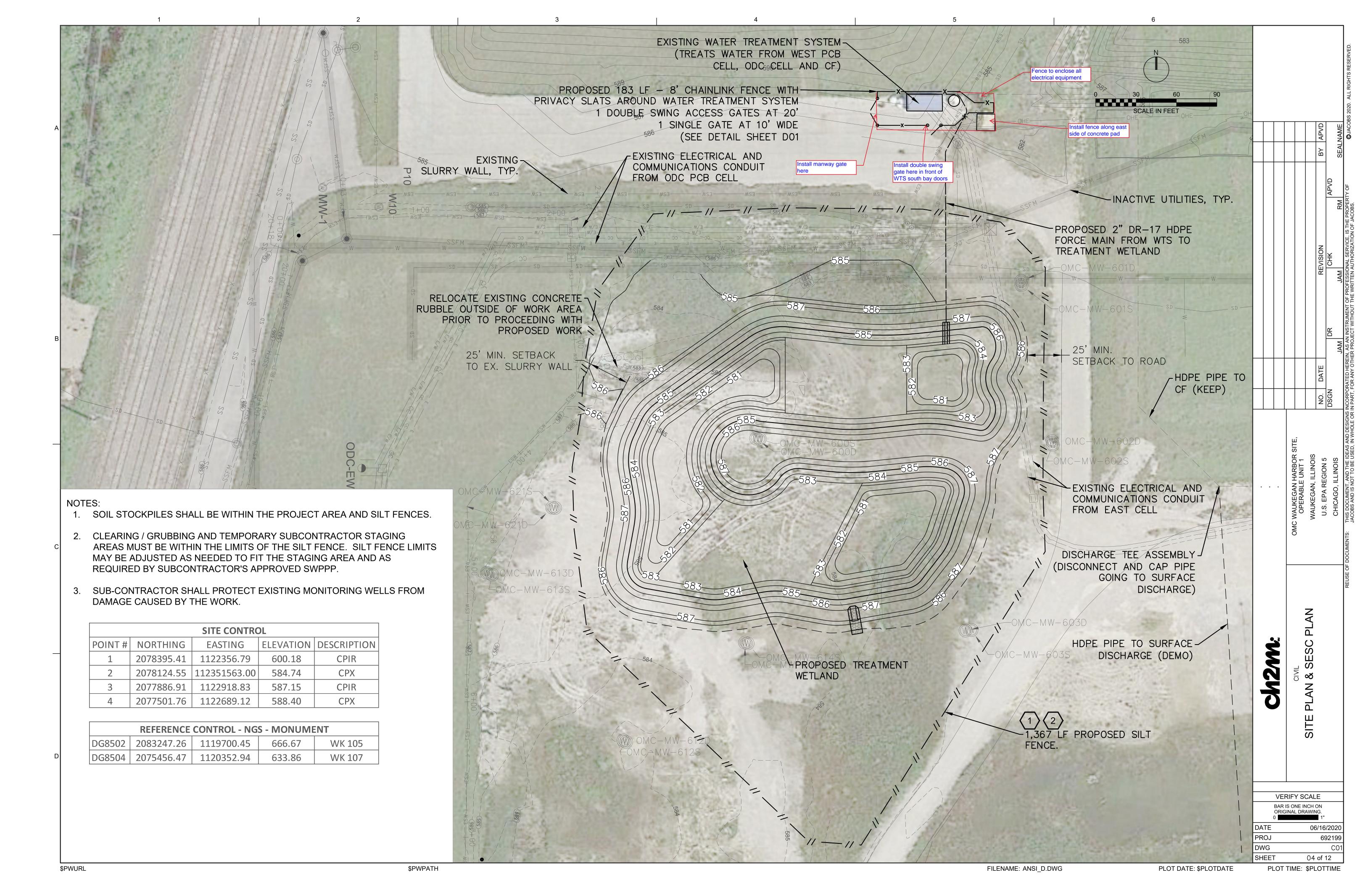
• •						
RFI-006	Concrete Slab Removal					
JSS Labor	<u>Description</u>	<u>Qty</u>	<u>Unit</u>	Unit Price		JSS Labor
	Project Manager	4	HR	109.73		\$438.92
	Supervisor	4	HR	138.95		\$555.80
	QC	4	HR	134.96		\$539.84
	Operator	26	HR	138.95		\$3,612.70
	Per Diem (Operator)	2	Day	150	_	\$300.00
					Labor Total	\$5,447.26
						<u>Extended</u>
<u>Equipment</u>	<u>Description</u>	<u>Qty</u>	<u>Unit</u>	<u>Unit Price</u>		<u>Price</u>
	Operator Truck	2	Day	200		\$400.00
	JD 650 Dozer	1	Day	860		\$860.00
	Skidsteer	0.5	Day	595		\$297.50
	Excavator 45-49K/Hammer	2	Day	1310		\$2,620.00
	Excavator Mob/Demob	1	Day	1050	_	\$1,050.00
						\$5,227.50
			Actual Mark-up		_	\$522.75
				Equipme	nt Cost Total	\$5,750.25
						<u>Extended</u>
<u>Subcontractor</u>	<u>Description</u>	<u>Qty</u>	<u>Unit</u>	<u>Unit Price</u>		<u>Price</u>
	SMC Density Testing	6	Hr	96		\$576.00
	IMEG Survey Crew	4	Hr	265	_	\$1,060.00
						\$1,636.00
			Actual Mark-up		-	\$163.60
				Subcontract	or Cost Total	\$1,799.60



Project Name/Description:	OMC Waukegan Harbor Site, OU	RFI No.:	007	Date Submitted: 7/12/20	
	CW-2134200/ EP-S5-06-01	Project No:	SC-2139		
To:	Nate Hehir		Project Ma	nager	
	Name		Title		
From:	Jennifer Seaman		Project Ma	nager	
	Name		Title		
	REF	ERENCES			
Document (Work Plan, Scope of	f Work, etc.):	Drawings			
Drawing(s)/Specification (I	Drawing No, Specification No., etc.):	Security F	Fence		
Detail/Section (Page No., Sect	ion No., Paragraph No., etc.):	C01 Shee	t 4 of 12		
Discipline (Architecture, Electr	ical, Mechanical, Chemical, Hydrogeology, etc.): Mechanic	al		
POTENTIAL IMPACT	C: Cost Schedul	le	civity/Task Impacted: Se	ecurity Fence Amount	
REQUEST Requested By: (Name/Company/Title)	CH2M and JSS discussed the final alignment at the site on June 29, 2020. The attached file shows CH2M's final fence alignment discussed in the field. The fence alignment will encompass all electrical equipment, including the power pole and transformers, and be installed along the east edge of the existing concrete pad in that area. The double swing gate will be relocated to the south side of the fence and placed in front of the WTS to allow for easy access to the WTS panel doors. The pedestrian gate will be relocated to the west side of the fence enclosure. CH2M confirms that the dimensions of the proposed fence alignment is 90 feet by 30 feet. Considering 20 feet for the double swing gate and 10 feet for the pedestrian gate, the total quantity of chain-link fence is increased from 169 to 210 linear feet using the proposed alignment. The total quantity of privacy slats is increased from 1,352 to 1,920 square feet. These quantities would be invoiced at the contract unit rate of \$91/LF and \$3.85/SF for line items 11 and 12, respectively. Please provide the increase in costs due to the fence extension in accordance with the contract unit rates. Jennifer Seaman/CH2M, Project Manager Response Requested by Date: 7/15/20				
REPLY:	JSS will invoice the additional fence and pricvacy slats at the existing contract unit rates: Increase in fence price 41 LF @ \$91/LF = \$3,731.00 Increase in privacy slats price 568SF @ \$3.85/SF=\$2,186.80 Total Increase \$5,917.80				
Responded By: (Name/Company/Title)	Nate Hehir/JSS/Project Manger		Date of Response:	7/13/20	
RESPONSE DISPOSITION/ CONCURRENCE:	Concur.				
Response Dispositioned / Con- With By: (Name/Company/Title)			Date Response Dispo	ositioned 7/13/20	
FURTHER ACTIONS RI	EQUIRED: CH2M WILL INCRE \$5,917.80.	CASE THE AG	REEMENT PRICE IN	THE AMOUNT OF	
REVIEW DISTRIBUTIO)N 1	FINAL DISTRI	IBUTION		



Project Name/Description		kegan Harbor Site, OU	RFI No.:	007	Date Submitted:	7/12/20
☐ CH2M HILL PM	□ Engineer		☐ CH2M HILL PM	☐ Procurement		
☐ CH2M HILL CM			☐ CH2M HILL CM	1 🗆		
☐ CH2M HILL QC		☐ Project Files	⊠ CH2M HILL QC		⊠ Projec	t Files





Project Name/Description:	OMC Waul	kegan Harbor Site, OU	RFI No.:	008	Date Submitted: //14/20
Contract/TO No:	CW-213420	00/ EP-S5-06-01	Project No:	SC-2139	
To:	J	ennifer Seaman Name	1	Project Ma Title	nager
From:		Nate Hehir		Project Ma	nager
		Name		Title	
		REF	FERENCES		
Document (Work Plan, S	Scope of Work, etc.):		Drawings		
Drawing(s)/Specificat	ion (Drawing No, S	pecification No., etc.):	Muskrat I	Fence Detail- 1	
Detail/Section (Page No	o., Section No., Para	graph No., etc.):	1 Musklra	nt Fence Detail Sheet 11	of 12
Discipline (Architecture,	Electrical, Mechani	cal, Chemical, Hydrogeology, etc	.): Animal C	ontrol	
POTENTIAL IMP	PACT:	Cost Schedu	le 🛭 Act	tivity/Task Impacted: M	uskrat Fence Detail-Gate
REQUEST JSS is seeking additional information pertaing to the Muskrat Proof Gate detailed in section 1 of the Notes. Please provide deisred gate dimensions, constrution details and installation location. JSS assumes this will need to be custom fabricated and requests additional information before fabricating.					
Requested By: (Name/Company/Title)	Nate Heh	Nate Hehir/Job Site Services/ Project Manager Response Requested by Date:			by Date: 7/15/20
REPLY:	See attacl	ned construction details.			
Responded By: (Name/Company/Title)	Jennifer S	Seaman/Jacobs, Project Ma	nager	Date of Response:	7/15/20
RESPONSE DISPOSITION/ CONCURRENCE:	Concurr				
Response Dispositioned With By: (Name/Company		Nate Hehir/JSS/Project Ma	nager	Date Response Dispo	ositioned 7/17/20
FURTHER ACTION	NS REQUIRED	: NONE			
REVIEW DISTRIBU	UTION		FINAL DISTR	IBUTION	
☐ CH2M HILL PM	Design Team		⊠ CH2M HILL PM		
☐ CH2M HILL CM ☐	1		⊠ CH2M HILL CM	ı 🗆	
☐ CH2M HILL QC]	Project Files	⊠ CH2M HILL QC		Project Files



Name/Description:	JMC Waukegan Harbor Site, OU	RFI No.:	009A	Date Submitted: 1/29/20		
	CW-2134200/ EP-S5-06-01	Project No:	SC-2139			
То:	Jennifer Seaman		Project Ma	=		
то	Name		Title			
From:	Nate Hehir Name		Project Ma Title	_		
		FERENCES				
Document (Work Plan, Scope o	f Work, etc.):	Drawings				
Drawing(s)/Specification (L	Orawing No, Specification No., etc.):	Treatmen	t Wetland Planting Deta	uils DWG P03		
Detail/Section (Page No., Section)	ion No., Paragraph No., etc.):	2 Goose S	Scare Tape Detail Sheet	11 of 12		
Discipline (Architecture, Electro	ical, Mechanical, Chemical, Hydrogeology, etc.	.): Animal C	ontrol			
POTENTIAL IMPACT	: Cost Schedul	le 🛭 Acı	tivity/Task Impacted: G	oose Scare Tape Detail		
REQUEST	JSS hase concrens with the propsed scare tape design from a constuctability approach. The current design calls for installation of twin monafilment lines with 6"x6" black plastic flag panels attached. JSS has spent significant effort attempting to located the black flag panels and has been unsuccessful to this point.					
	As an alternate, JSS is proposing replacement of the black plastic panels with a lighter relective tape that is self adhesive and designed as a goose replleant. See attached website for example tape: https://www.nixalite.com/product/repeller-ribbon					
	Based on availability, the material my need to be sourced from several vendors as shown in the attachcments.					
	Attached:					
	1. Photos of goose tape to be used.					
Requested By: (Name/Company/Title)	Nate Hehir/Job Site Services/ Project	et Manager	Response Requested	by Date: 7/31/20		
REPLY:	The installation of the monofilament install as designed in the constructio		greed on by Jacobs and	JSS field management staff to		
	The construction drawing has a refer no reference to placement spacing or			5"x6" black flag panels but has		
	The Jacobs field management team a request the reflective deterent tape b monofilament north / south gridline	e placed at a min	nmum of 24" of tape spa	aced out over every 50 LF of		
Responded By: (Name/Company/Title)	Fred Williams /Jacobs Engineering/ Manager - Quality Manager	Construction	Date of Response:	07.29.2020		
RESPONSE DISPOSITION/ CONCURRENCE:	Concurr					
Response Dispositioned / Cond With By: (Name/Company/Title)	J	nager	Date Response Dispo	ositioned 7/30/20		
FURTHER ACTIONS RE	EQUIRED: NONE					
REVIEW DISTRIBUTION F		FINAL DISTR	NAL DISTRIBUTION			



Project Name/Description:		kegan Harbor Site, OU	RFI No.:	009A	Date Submitted: 7/29/20
☐ CH2M HILL PM	Design Manager		☐ CH2M HILL PM	т 🗆	
☐ CH2M HILL CM			☐ CH2M HILL CM	1 🗆	
☐ CH2M HILL QC		Project Files	☐ CH2M HILL QC		☑ Project Files





Click an image to see a larger picture.

Bird Scare Repeller Ribbon

Repeller Ribbon provides spot control for nuisance birds by producing an optical and audible discomfort zone that they find disturbing to be around. Repeller Ribbon is 2 inches wide and available in 50ft, 100ft & 200ft rolls.

How Bird Repeller Ribbon Works...

The light reflected from its 2" wide holographic surface is menacing to most pest birds. Movement from wind action produces a metallic rattling sound which is unsettling to birds and cautious deer. When applied in a line fashion along a narrow ledge or on top of a fence, the ribbon can deter bird roosting. If cut into 24" to 30" strips and hung from the outer limbs of trees, it provides a useful deterrent for small orchards and landscaping. Easily cut to the desired length with scissors.

Use as avoidance tags for Nixalite's Deer Blocker Deer Fence! Simply cut 2 to 3 foot lengths and fasten to the fencing, 4 to 5 feet up from the ground. Very effective!

Available in 50, 100 & 200 Foot Rolls.



EACILLES Self-Adhesive Bird Repellent Scare Tape, Holographic Reflective Bird Deterrent, 2 Inches by 164 Feet

















Roll over image to zoom in

Adhesive Bird Scare Repellent Flash Tape: Holographic Deterrent Devices for Pigeon, Woodpecker, Hawk -Repellant Products to Prevent Birds from Hitting Windows/House -Reflective Ribbon, 147 ft

Brand: Bird Blinder

★★★☆☆ Y 78 ratings | 13 answered questions

Price: \$12.98 (\$12.98 / Item) FREE Shipping on your first order. Details

Get \$60 off instantly: Pay \$0.00 upon approval for the Amazon Rewards Visa Card. No annual fee.

- · Environmentally Friendly: Unlike bird deterrents made from chemicals, Bird Blinder tape is completely safe for the environment and birds; scare off geese, pigeons and other pests like raccoons
- Huge Roll: Our jumbo, 147 foot roll of 1.5 inch thick bird scare tape will last for years and years; with our product, you'll be able to protect your home from birds and other pests for many seasons
- · Effective Bird Deterrents Birds are majestic animals, but they can wreak havoc on your home, car, patio, garden and more; with reflective patterns, Bird Blinder tape is designed to keep birds

away



OMC Waukegan Harbor Site, OU	RFI No.:	010	Date Submitted: 7/30/20	
CW-2134200/ EP-S5-06-01	Project No:	SC-2139		
Jennifer Seaman Name		Project Ma Title	=	
Nate Hehir		•	e e	
Name	EDENCEC	Title		
f Work, etc.):			~	
Prawing No, Specification No., etc.):	of 12		, Schedule, and Details Sheet 10	
on No., Paragraph No., etc.):	Wetland I	Planting Notes		
ical, Mechanical, Chemical, Hydrogeology, etc.,): Planting			
Cost Schedule	e 🛭 Act	ivity/Task Impacted: W	Vetlands Planting	
Below is a statement from Mike Polito of Tallgrass Restoration concerning the addition of 10-10-10 fertilizer at planting time: In my experience with native plug experience or native seeding, I have never added fertilizer to the soil the plugs/seed themselves. It has never proven necessary, as my plantings have done well, and on the exceptions where they struggled, the culprits were higher than expected surges of weedy and invasive provents. My concern isn't just that the fertilizer usage may be unnecessary, but that it may be detrimented weedy and invasive species are more capable of taking advantage of fertilized soil due to their aggressing growth. By adding fertilizer to the planting protocol, I am concerned it will lead to a larger population of weeds to control later, which will prove an inconvenience to the maintenance of the property, but also per a threat to the wellbeing of the plugs. Furthermore, my experience with fertilizer usage is low (as it is not spec'd into the projects we work on), and I understand that there is the potential to "burn out" plants wit improper dosages of fertilizer. I am concerned that if my assessment of the prescribed dosage is off, especially due to the immediate proximity to the plugs' roots, that we may see the fertilizer hurt the new growing plugs more than help them. From an operational standpoint, I am also conflicted about how to ensure the fertilizer stays in place when we are planting the deeper plugs/tubers, where the crew will be working in muddy, standing water and will rely heavily on their sense of touch to create planting holes a install the plant material.				
JSS recomends eliminating the fertili	zer from the pla	anting requirements.		
		T _		
Nate Hehir/Job Site Services/ Project	t Manager	Response Requested	by Date: 8/03/20	
	-		ng the wetland plants. Fertilizer	
Jennifer Seaman/CH2M Project Manager		Date of Response:	8/02/20	
	Jennifer Seaman Name Nate Hehir Name REF Work, etc.): Trawing No, Specification No., etc.): Ton No., Paragraph No., etc.): Cost Schedul Below is a statement from Mike Polifertilizer at planting time: In my experience with native plug exthe plugs/seed themselves. It has nevexceptions where they struggled, the growth. My concern isn't just that the Weedy and invasive species are more growth. By adding fertilizer to the pweeds to control later, which will prove a threat to the wellbeing of the plugs spec'd into the projects we work on) improper dosages of fertilizer. I am especially due to the immediate proxe growing plugs more than help them. ensure the fertilizer stays in place whorking in muddy, standing water are install the plant material. I am happy to discuss the usage of ferefusing to utilize it, I just have strong JSS recomends eliminating the fertilic Nate Hehir/Job Site Services/ Project. It is acceptable to forego use of the fits still required as a topsoil amendment.	Jennifer Seaman Name Nate Hehir Name REFERENCES Treatment of 12 on No., Paragraph No., etc.): Cost Schedule Act Below is a statement from Mike Polito of Tallgrass I fertilizer at planting time: In my experience with native plug experience or natithe plugs/seed themselves. It has never proven nece exceptions where they struggled, the culprits were hig growth. My concern isn't just that the fertilizer usage Weedy and invasive species are more capable of tak growth. By adding fertilizer to the planting protocol weeds to control later, which will prove an inconven a threat to the wellbeing of the plugs. Furthermore, spec'd into the projects we work on), and I understat improper dosages of fertilizer. I am concerned that it especially due to the immediate proximity to the plug growing plugs more than help them. From an operate ensure the fertilizer stays in place when we are plant working in muddy, standing water and will rely heavinstall the plant material. I am happy to discuss the usage of fertilizer in more refusing to utilize it, I just have strong apprehension. JSS recomends eliminating the fertilizer from the plant naterial. It is acceptable to forego use of the fertilizer pellets it is still required as a topsoil amendment based on the Jennifer Seaman/CH2M	Jennifer Seaman Name Name REFERENCES Twowing No. Specification No., etc.): Drawings Treatment Wetland Planting Plan of 12 Wetland Planting Notes Cost Schedule Schedule Activity/Task Impacted: Wetlend Planting ther the plugs/seed themselves. It has never proven necessary, as my plantings hexceptions where they struggled, the culprits were higher than expected surgerowth. My concern isn't just that the fertilizer usage may be unnecessary, Weedy and invasive species are more capable of taking advantage of fertilizer growth. By adding fertilizer to the planting protocol, I am concerned it will weeds to control later, which will prove an inconvenience to the maintenance a threat to the wellbeing of the plugs. Furthermore, my experience with fert spec'd into the projects we work on), and I understand that there is the poter improper dosages of fertilizer. I am concerned that if my assessment of the especially due to the immediate proximity to the plugs' roots, that we may se growing plugs more than help them. From an operational standpoint, I am ensure the fertilizer stays in place when we are planting the deeper plugs/tub working in muddy, standing water and will rely heavily on their sense of tou install the plant material. I am happy to discuss the usage of fertilizer from the planting requirements. Nate Hehir/Job Site Services/ Project Manager Response Requested It is acceptable to forego use of the fertilizer pellets specifically when plantii is still required as a topsoil amendment based on the soil testing results.	



Project Name/Description:	OMC Wau	ıkegan Harbor Site, OU	RFI No.:	010	Date Submitted: 7/30/20		
RESPONSE DISPOSITION/ CONCURRENCE	Concurr:						
Response Dispositione	ed / Concurred	Nate Hehir/JSS/Project M	anager	Date Response Dispo	sitioned 8/3/20		
With By: (Name/Company/Title) Concurred With:							
FURTHER ACTIO	ONS REQUIREI): NONE					
REVIEW DISTRI	BUTION		FINAL DISTRIBUTION				
⊠ CH2M HILL PM	Design Manager		☐ CH2M HILL PM				
☐ CH2M HILL CM			☐ CH2M HILL CM				
☐ CH2M HILL QC		☐ Project Files	☐ CH2M HILL QC		☐ Project Files		



Project (Name/Description:	OMC Waukegan Harbor Site, OU	RF	I No.:	011	Date Submitted: 8/03/20
	CW-2134200/ EP-S5-06-01	Pro	oject No:	SC-2139	
To:	Nate Hehir	1		Project Ma	_
	Name			Title	
From:	Jennifer Seaman Name			Project Ma Title	0
		ERE	NCES	Title	
Document (Work Plan, Scope of	f Work, etc.):		Specificat	ions	
Drawing(s)/Specification (D	Prawing No, Specification No., etc.):		Various		
Detail/Section (Page No., Section)	ion No., Paragraph No., etc.):		Various		
Discipline (Architecture, Electro	ical, Mechanical, Chemical, Hydrogeology, etc.	.):	Various		
POTENTIAL IMPACT	: Cost Schedul	le [Act	tivity/Task Impacted: V	arious
REQUEST	During the course of the work, sever schedule, cost, or both. CH2M is requestimates) for the following items: 1. Removal and onsite management of miscellaneous debris. Onsite manage Payment will be made on a lump-sur 2. Loading, transportation, and dispondent of the properties of the provided of the	of (8) 8 ft by 8 ft of concrete sis. of concrete 14 ft by 22 on basis supof abandone on basis supof vegetativ 1 and vegets 5b.	t by 2 ft concrete found the includes size reduction from (8) concrete foote ft by 3 ft). Concrete shapported by landfill weight poported by landfill weight poported by landfill weight deprise and soils that we attive debris shall be dispersion.	ations, abandoned pipes, and on necessary for offsite disposal. ers (8 ft by 8 ft by 2 ft) and (1) ll be disposed of at an approved th tickets. ous debris at an approved th tickets. evere stripped during site clearing
	Payment will be made on a lump-su	m ba	ısis.		
Requested By: (Name/Company/Title)	Jennifer Seaman/CH2M Project Manager			Response Requested	by Date: 8/7/20
REPLY:	Please see attached cost proposal to	perfo	orm the add	itional work.	
Responded By: (Name/Company/Title)	Nate Hehir/JSS/Project Manager			Date of Response:	8/4/20
RESPONSE DISPOSITION/ CONCURRENCE:					
Response Dispositioned / Cond With By: (Name/Company/Title)	curred			Date Response Dispo Concurred With:	ositioned



Project Name/Description		ıkegan Harbor Site, OU	RFI No.:	011	Date Submitted: 8/03/20	
FURTHER ACTIONS REQUIRED:						
REVIEW DISTR	IBUTION		FINAL DISTR	IBUTION		
☐ CH2M HILL PM			☐ CH2M HILL PM	ı 🗆		
☐ CH2M HILL CM			☐ CH2M HILL CM	4 🗆		
☐ CH2M HILL QC		Project Files	☐ CH2M HILL QC		Project Files	



Project On Name/Description:	OMC Waukegan Harbor Site, OU	RFI No.:	011A	Date Submitted: 8/05/20
	CW-2134200/ EP-S5-06-01	Project No:	SC-2139	<u> </u>
To:	Nate Hehir Name	1	Project Ma Title	
From:	Jennifer Seaman		Project Ma	
riom.	Name		Title	· ·
		ERENCES		
Document (Work Plan, Scope o	f Work, etc.):	Specificat	tions	
Drawing(s)/Specification (L	Orawing No, Specification No., etc.):	Various		
Detail/Section (Page No., Sect	ion No., Paragraph No., etc.):	Various		
Discipline (Architecture, Electr	ical, Mechanical, Chemical, Hydrogeology, etc.): Various		
POTENTIAL IMPACT	: Cost 🛭 Schedul	e 🛭 Acı	tivity/Task Impacted: V	arious
REQUEST	During the course of the work, sever schedule, cost, or both. CH2M is req estimates) for the following items:	-		
	Removal and onsite management of miscellaneous debris. Onsite manage Payment will be made on a lump-sur	ement of concre		
	2. Loading, transportation, and dispersion concrete slab (measuring approximate landfill. Payment will be made on a page 1.00 measurement of the control of	tely 14 ft by 22	ft by 3 ft). Concrete sha	ll be disposed of at an approved
	3. Loading, transportation, and dispolandfill. Payment will be made on a l			ous debris at an approved
	4. Loading, transportation, and disportant are unsuitable for use onsite. The Confirm unit price bid item to be use tickets.	e soil and veget	ative debris shall be disp	posed at an approved landfill.
	5. Collection and analysis of waste c	haracterization	samples for:	
	5a. Unsuitable soils and vegetat	tion		
	5b. Concrete			
	Payment will be made on a lump-su	m basis.		
	6. Increase to Bid Item 1 - Payment a RFI 006 (concrete slab removal for t			associated with this RFI and
	7. Increase to Bid Item 2 - Insurance	due to the costs	s associated with this RF	I and RFI 006.
Requested By: (Name/Company/Title)	Jennifer Seaman/CH2M Project Manager		Response Requested	by Date: 8/6/20
REPLY:	Please see attached cost break down disposal, JSS will need to invoice di \$35/ton per Jacobs request to dispose tipping fee expense as compared to t	isposal of this w e of this materia	aste stream using the Oplate at the landfill. JSS wil	ptional Bid Item 10 unit rate of lincurr additional trucking and



Project Name/Description:	OMC Waukegan Harbor Site, OU	RFI No.:	011A	Date Submitted: 8/05/20	
	accounted for disposal at a local co	omposting recycling	g faclity that results in	a lower cost.	
Responded By: (Name/Company/Title)	Nate Hehir/JSS/Project Manager		Date of Response:	8/6/20	
RESPONSE DISPOSITION/ CONCURRENCE:	Concur - CH2M has determined that the costs are fair and reasonable based on an independent cost estimate. Change orders were issued to JSS to increase the agreement price by \$30,137.97 (Agreement Revision 06) and \$42,573.85 (Agreement Revision 07) for a total increase of \$72,711.82.				
Response Dispositioned / Co With By: (Name/Company/Tit		Date Response Dispo	ositioned 8/21/20		
FURTHER ACTIONS	REQUIRED: NONE				
REVIEW DISTRIBUTI	ION	FINAL DISTRI	BUTION		
☐ CH2M HILL PM ☐ Co	st estimator	☐ CH2M HILL PM			
☐ CH2M HILL CM ☐		☐ CH2M HILL CM			
☐ CH2M HILL QC ☐	☐ Project Files	☐ CH2M HILL QC		□ Project Files	



Environmental Construction & Site Remediation

Job Site Services

Project: OMC Waukegan

Change Order: 002 Date: 8/6/20

RFI-011A Waste Management/Various

Item 1	Removal and On-site Management of Cond	crete Foundations/Aba	ndoned Pipe	s and Misc. Debirs	
JSS Labor	<u>Description</u>	<u>Qty</u>	<u>Unit</u>	Unit Price	JSS Labor
	Project Manager	2	HR	\$109.73	\$219.46
	Supervisor	12	HR	\$138.95	\$1,667.40
	QC	12	HR	\$134.96	\$1,619.52
	Operator	12	HR	\$138.95	\$1,667.40
	Per Diem (3-man crew)	3	Day	\$150.00	\$450.00
				Labor Total	\$5,623.78
					<u>Extended</u>
<u>Equipment</u>	<u>Description</u>	<u>Qty</u>	<u>Unit</u>	Unit Price	<u>Price</u>
	Supervisor/QC/Operator Truck	3	Each	\$200.00	\$600.00
	JD 650 Dozer	1	Day	\$860.00	\$860.00
	Excavator 35K	1	Day	\$550.00	\$550.00
	Excavator 45-49K/Hammer	1	Day	\$1,310.00	\$1,310.00
					\$3,320.00
		A	ctual Mark-up	o (10% profit)	\$332.00
				Equipment Cost Total	\$3,652.00

Item 1 Total Cost \$9,275.78

JSS Labor	<u>Description</u>	<u>Qty</u>	<u>Unit</u>	Unit Price	JSS Labor
	Project Manager	2	HR	\$109.73	\$219.46
	Supervisor	10	HR	\$138.95	\$1,389.50
	QC	10	HR	\$134.96	\$1,349.60
	Operator	10	HR	\$138.95	\$1,389.50
	Per Diem (3-man crew)	3	Day	\$150.00	\$450.00
				Labor Total	\$4,798.06
					<u>Extended</u>
<u>Equipment</u>	<u>Description</u>	<u>Qty</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Price</u>
	Supervisor/QC/Operator Truck	3	Each	\$200.00	\$600.00
	Excavator 45-49K/Hammer	1	Day	\$1,310.00	\$1,310.00
					\$1,910.00
		A	Actual Mark-up	(10% profit)	\$191.00
				Equipment Cost Total	\$2,101.00
					<u>Extended</u>
Subcontractor	<u>Description</u>	<u>Qty</u>	<u>Unit</u>	Unit Price	<u>Price</u>
	Trucking	196	Ton	\$7.75	\$1,519.00
	Adavanced Disposal Landfill	196	Ton	\$30.00	\$5,880.00
				-	\$7,399.00
		A	Actual Mark-up	(10% profit)	\$739.90
				Subcontractor Cost Total	\$8,138.90
		Tota	l Labor/Equipr	ment/Subcontractor Cost	
				Total Cost Per Ton	\$76.72
Item 3	Loading, Transportation and Disposal of Abandone	ed Pipes and N	႔isc Debris		
JSS Labor	<u>Description</u>	<u>Qty</u>	<u>Unit</u>	<u>Unit Price</u>	JSS Labor
	Project Manager	0.5	HR	\$109.73	\$54.87
	Supervisor	1	HR	\$138.95	\$138.95
	QC	1	HR	\$134.96	\$134.96
	Operator	1	HR	\$138.95	\$138.95

				Labor Total	\$467.73		
					Extended		
<u>Equipment</u>	<u>Description</u>	<u>Qty</u>	<u>Unit</u>	Unit Price	<u>Price</u>		
	Excavator 45-49K/Hammer	0.25	Day	\$1,310.00	\$327.50		
					\$327.50		
		A	ctual Mark-u	o (10% profit)	\$32.75		
				Equipment Cost Total	\$360.25		
					Extended		
Subcontractor	<u>Description</u>	<u>Qty</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Price</u>		
	Trucking	1	Load	\$178.25	\$178.25		
	Adavanced Disposal Landfill	13	Ton	\$85.00	\$1,105.00		
					\$1,283.25		
		A	ctual Mark-u _l	o (10% profit)	\$128.33		
				Subcontractor Cost Total	\$1,411.58		
		Total	Labor/Equip	ment/Subcontractor Cost	\$2,239.55		
Item 4	Loading, Transportation and Disposal of Ve	getative Debris and U	nsuitable Soi	I			
	Utilize Established Non-Hazardous Soil Disposal; Optional Bid Item 10: \$35/ton						
	Estimated QTY= 1,170 tons @\$35/ton = \$40		10: \$35/1011				
	•			ll Estimated Disposal Cost	\$40,950.00		
Item 5	•	0,950.00	Tota	ll Estimated Disposal Cost	\$40,950.00		
Item 5 JSS Labor	Estimated QTY= 1,170 tons @\$35/ton = \$40	0,950.00	Tota	ll Estimated Disposal Cost	\$40,950.00 JSS Labor		
	Estimated QTY= 1,170 tons @\$35/ton = \$40 Collection and Analysis of Waste Character	0,950.00 rization Samples/Was	Tota te Profile Pre	l Estimated Disposal Cost			
	Estimated QTY= 1,170 tons @\$35/ton = \$40 Collection and Analysis of Waste Character Description	0,950.00 rization Samples/Was	Tota te Profile Pre <u>Unit</u>	Il Estimated Disposal Cost paration Unit Price	JSS Labor		

<u>Equipment</u>	<u>Description</u> Project Manager Truck	<u>Qty</u> 2 Act	<u>Unit</u> Each ual Mark-up	Unit Price \$200.00 (10% profit) Equipment Cost Total	Price \$400.00 \$400.00 \$40.00 \$440.00
Subcontractor	Description	<u>Qty</u>	Unit	Unit Price	Price
	Eurofins- Concrete Sample	1	Ton	\$152.50	\$152.50
	Eurofins- Soil Sample	1	Ton	\$837.50	\$837.50
				-	\$990.00
		Act	ual Mark-up	(10% profit)	\$99.00
				Subcontractor Cost Total	\$1,089.00
		Total La	abor/Equipi	ment/Subcontractor Cost	\$3,584.68
Item 6	Bid Item 1 - Payment & Performance Bond Increa	ase			
	Description	Qty	<u>Unit</u>	<u>Unit Rate</u>	JSS Labor
	RFI -006	\$12,997.11	%	0.63	\$81.88
	RFI-011A	\$71,087.97	%	0.63	\$447.85
				P&P Bond Total	\$529.74
Item 7	Bid Item 2 - Insurance Increase				
	Description	<u>Qty</u>	<u>Unit</u>	<u>Unit Rate</u>	JSS Labor
	RFI -006	\$12,997.11	%	1.30	\$168.96
	RFI-011A	\$71,087.97	%	1.30	\$924.14



9	OMC waukegan Harbor Site, OU	KFI No.:	012A	Date Submitted: 9/08/20
Name/Description: Contract/TO No:	CW-2134200/ EP-S5-06-01	Project No:	SC-2139	
То:	Nate Hehir		Project Ma	_
	Name		Title	
From:	Jennifer Seaman Name		Project Ma Title	nager
		FERENCES		
Document (Work Plan, Scope o	f Work, etc.):	Specificat	tions	
Drawing(s)/Specification (L	Orawing No, Specification No., etc.):	Various		
Detail/Section (Page No., Section)	ion No., Paragraph No., etc.):	Various		
Discipline (Architecture, Electro	ical, Mechanical, Chemical, Hydrogeology, etc	.): Various		
POTENTIAL IMPACT	: Cost Schedu	le 🛛 Act	tivity/Task Impacted: C	hain-link fence installation
REQUEST	Due to the shallow depth of the Wesasphalt area, the chain-link fence cafence installation details to include reduction of privacy slats to 50% compared to 50%. Based on proposed modifications from the version of Sheet 12, a fence layout prinstalled anchors, and metal fabrication installation and soil not reused must waste profiles that have been review Excavated soils may be reused as conceptable.	nnot be installed reinforced concreverage. om the fence installed blan with surface ing specification be disposed at a yed and approved ompacted fill, sin	as shown on Sheet 12. ete footers to a maximum taller, CH2M has update finishes, structural comes are attached. Pre-exist offsite landfill. The sud assuming that the same nilar to installation of the	CH2M has re-designed the m depth of 18 inches and a led the fence design. A revised crete specifications, postting asphalt removed for abcontractor may use existing e disposal facility will be used. In the HPDE discharge line.
	change.		Ta	
Requested By: (Name/Company/Title)	Jennifer Seaman/CH2M Project Manager		Response Requested	by Date: 9/11/20
REPLY: Responded By:	The exisitng fence installation unit reproposal is for excavation, concrete concrete/asphalt installation not include Nate Hehir/Job Site Services/Projection	, asphalt, disposa uded. Based on	al and restoration service	es. Pricing for cold weather
(Name/Company/Title)	Nate Hellif/Job Site Services/Frojec	t Manager	Date of Response.	9/10/20
RESPONSE DISPOSITION/ CONCURRENCE:	EPA has elected not to perform the line items 11 through 14 (\$24,684) a			
Response Dispositioned / Cond With By: (Name/Company/Title)	Jennifer Seaman/CH2M Project Manager		Date Response Dispo	ositioned 10/15/2020
FURTHER ACTIONS RE	EQUIRED: NONE			
REVIEW DISTRIBUTIO	N	FINAL DISTR	IBUTION	
☐ CH2M HILL PM ☐		☑ CH2M HILL PM	ı 🗆	
☐ CH2M HILL CM ☐		CH2M HILL CM	1 🗆	



Project Name/Description:	OMC Waukegan Harbor Site, OU	RFI No.:	012A	Date Submitted: 9/08/20
☐ CH2M HILL QC ☐	☐ Project Files	☐ CH2M HILL QC		Project Files



Environmental Construction & Site Remediation

Job Site Services

Project: OMC Waukegan Change Order: 003 Date: 9/16/20

RFI-012A

WTS Fencing

Mobilization 1 - Excavation, Inuslation Installation, Compaction/Testing, Concrete Placement, Backfill, Gravel Installation,

Item 1 Asphalt, Soil Disposal

JSS Labor	<u>Description</u>	Qty	<u>Unit</u>	Unit Price	JSS Labor
	JSS Crew Mobilizations x2 from Bay City, MI	1	LS	\$8,101.00	\$8,101.00
	Project Manager	40	HR	\$109.73	\$4,389.20
	Supervisor	80	HR	\$138.95	\$11,116.00
	QC	80	HR	\$134.96	\$10,796.80
	Operator	80	HR	\$138.95	\$11,116.00
	Laborer	80	HR	\$109.55	\$8,764.00
	Per Diem (4-man crew)	8	Day	\$600.00	\$4,800.00

JSSLabor Total \$59,083.00

					<u>Extended</u>
Equipment / Materials	<u>Description</u>	<u>Qty</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Price</u>
	Insulation	1	Each	\$2,500.00	\$2,500.00
	Supervisor/QC/Operator Truck	8	Day	\$600.00	\$4,800.00
	Equipment Delivery	1	LS	\$2,100.00	\$2,100.00
	Compactor	2	Day	\$163.35	\$326.70
	Air Knife Vac Trailer	1	LS	\$1,200.00	\$1,200.00
	Asphalt Saw	1	Day	\$736.00	\$736.00
	Skidsteer 2.5K (Broom/Forks)	2	Week	\$1,440.00	\$2,880.00
	Excavator 10K	2	Week	\$880.00	\$1,760.00
	Excavator 34K	1	Day	\$550.00	\$550.00
					\$16,852.70
		Actual Ma	ark-up (10% ¡	orofit)	\$1,685.27
			Equipment (Cost Total	\$18,537.97
					<u>Extended</u>
Subcontractor	<u>Description</u>	<u>Qty</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Price</u>
	Private Utility Locate	1	EA	\$750.00	\$750.00
	IMEG Survey Crew	6	Hr	\$265.00	\$1,590.00
	Concrete/Asphalt Installation	1	LS	\$40,000.00	\$40,000.00
	Third Party Material Testing	1	LS	\$4,366.00	\$4,366.00
					\$46,706.00
		Actual Ma	ark-up (10% إ	orofit)	\$4,670.60
		Sı	ubcontractor	Cost Total	\$51,376.60

					<u>Extended</u>
Optional Bid Item	<u>Description</u>	<u>Qty</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Price</u>
*Option 6	Supply 21AA Gravel	54	Ton	\$35.00	\$1,890.00
	Handling and Coordination of Off-Site Waste				
*Option 10	Disposal Non-Hazardous Soil	94	Ton	\$35.00	\$3,290.00
				Optional Bid Item Total	\$5,180.00
* = + : + + : + :	antical and based as weight tiplets				

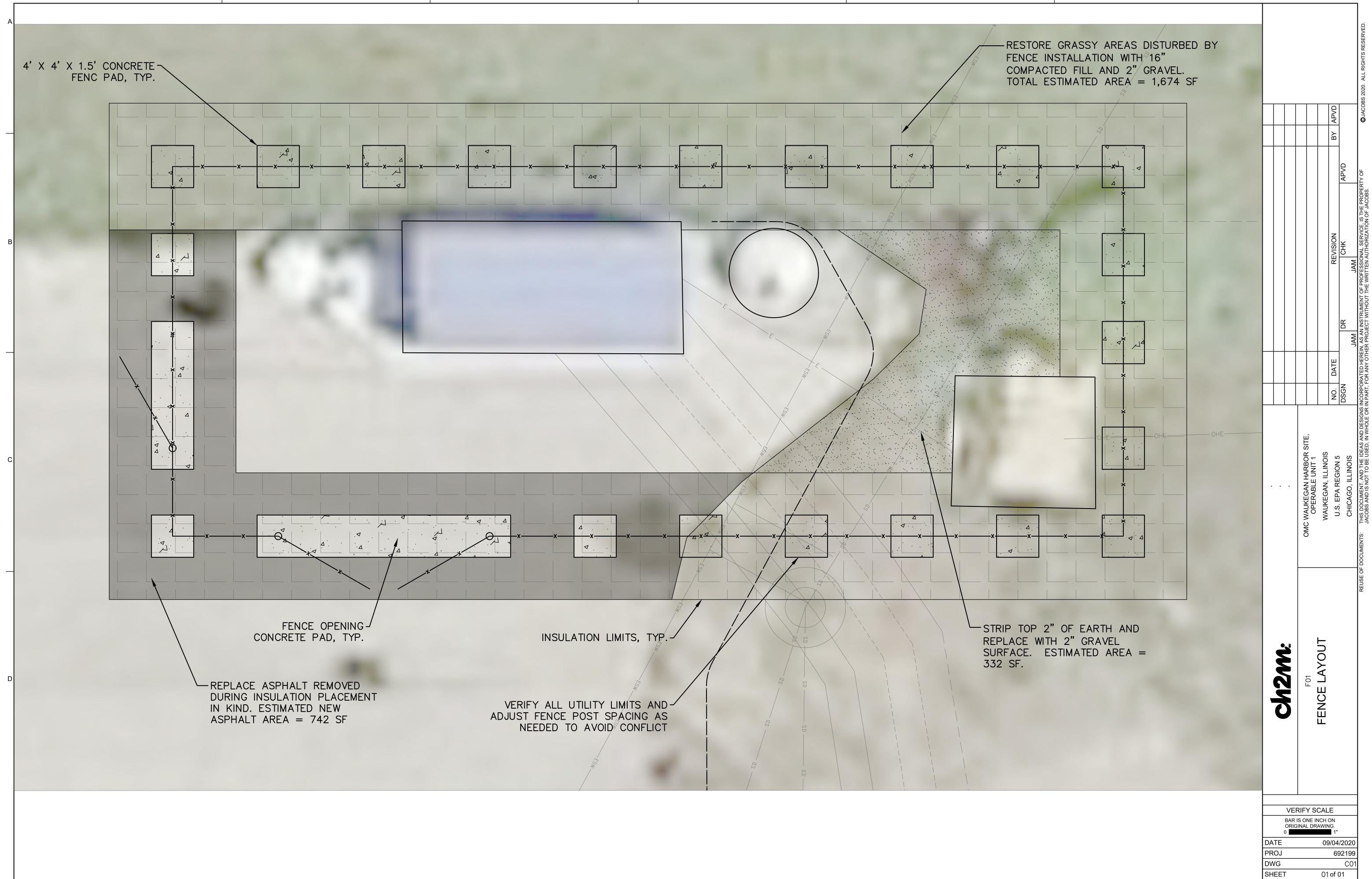
^{*}Estimated quantities, actual cost based on weight tickets.

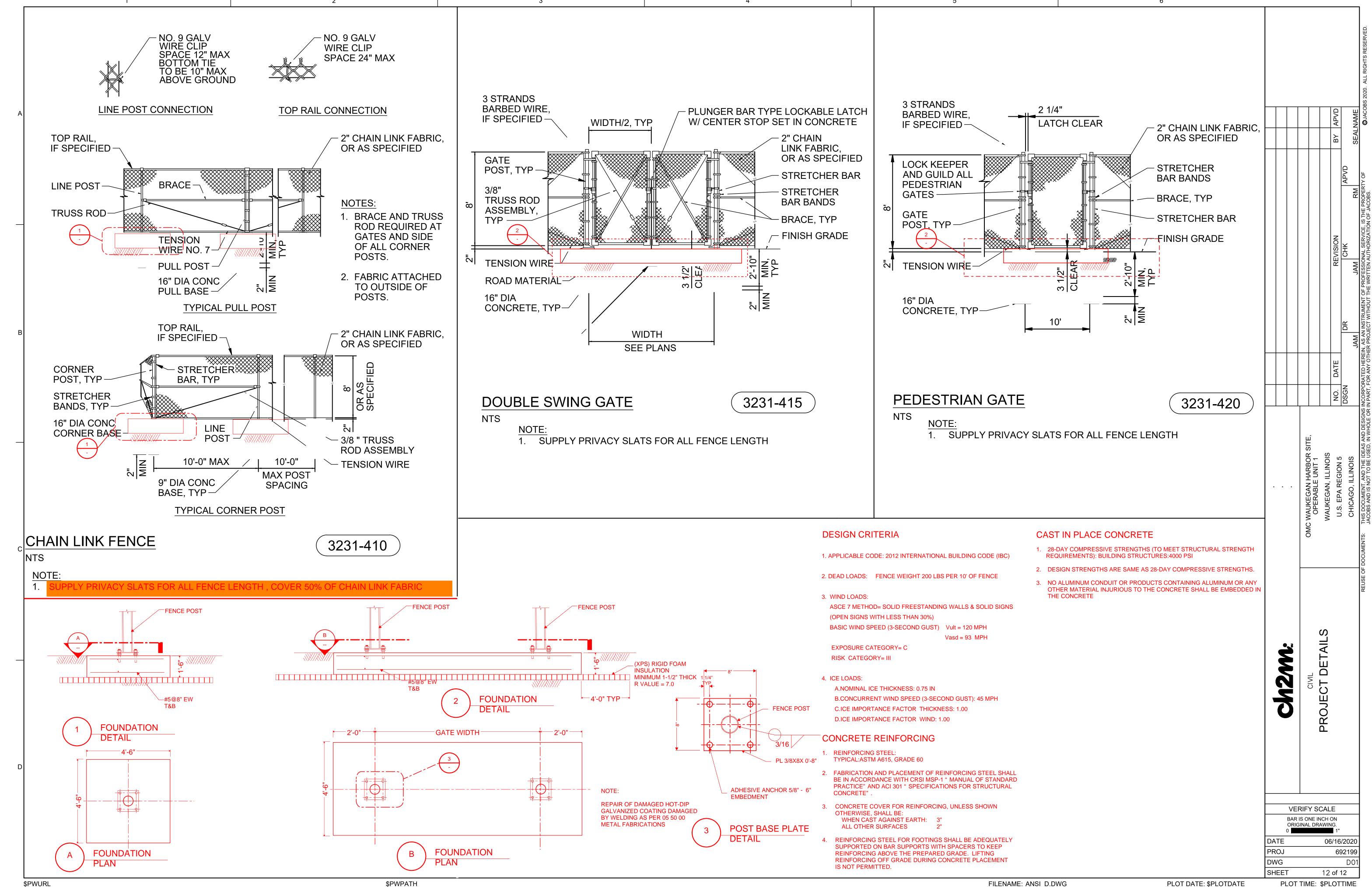
Item 1 Total Cost \$134,177.57

Item 2	Mobilization 2 - Install WTS Fence (21 days after concrete	e cure)				
JSS Labor	<u>Description</u>	<u>Qty</u>	<u>Unit</u>	<u>Unit Price</u>		JSS Labor
	Project Manager	4	HR	\$109.73		\$438.92
	Supervisor	20	HR	\$138.95		\$2,779.00
	QC	20	HR	\$134.96		\$2,699.20
	Per Diem (2-man crew)	2	Day	\$150.00		\$300.00
					Labor Total	\$6,217.12
						<u>Extended</u>
<u>Equipment</u>	Description	<u>Qty</u>	<u>Unit</u>	Unit Price		<u>Price</u>
	Supervisor/QC Truck	4	Each	\$200.00	_	\$800.00
					_	\$800.00
			Actual Mark-u	\$80.00		
				\$880.00		

Item 2 Total Labor/Equipment/Subcontractor Cost \$7,097.12

Estimated RFI-012A Total \$141,274.69





SECTION 03 30 10 STRUCTURAL CONCRETE

PART 1 GENERAL

1.01 GENERAL

A. Work shall conform to requirements of ACI 301, Specifications for Structural Concrete, unless otherwise specified.

1.02 REFERENCES

- A. In accordance with ACI 301 and the following:
 - 1. American Concrete Institute (ACI):
 - a. 301, Specifications for Structural Concrete.
 - b. 305.1, Specification for Hot Weather Concreting.
 - c. 306.1, Specification for Cold Weather Concreting.
 - d. 308.1, Specification for Curing Concrete.
 - e. SP-66, Detailing Manual.
 - f. Formwork and Formwork Accessories.
 - 2. ASTM International (ASTM):
 - a. C1260, Standard Test Method for Potential Alkali Reactivity of Aggregates (Mortar-Bar Method).
 - b. D1056, Specification for Flexible Cellular Materials—Sponge or Expanded Rubber.
 - 3. Concrete Reinforcing Steel Institute (CRSI):
 - a. Manual of Standard Practice.
 - b. Placing Reinforcing Bars.
 - c. ANSI/CRSI RB 4.1, CRSI Standard for Supports for Reinforcement Used in Concrete.
 - 4. National Ready Mixed Concrete Association (NRMCA).

1.03 DEFINITIONS

- A. Cold Weather: When ambient temperature is below 40 degrees F or is approaching 40 degrees F and falling.
- B. Defective Area: Surface defects that include honeycomb, rock pockets, indentations, and surface voids greater than 3/16-inch deep, surface voids greater than 3/4 inch in diameter, cracks in liquid containment structures and below grade habitable spaces that are 0.005-inch wide and wider, and cracks in other structures that are 0.010-inch wide and wider, spalls, chips, embedded debris, sand streaks, mortar leakage from form joints, deviations in formed

surface that exceed specified tolerances and include but are not limited to fins, form pop-outs, and other projections. At exposed concrete, defective areas also include texture irregularities, stains, and other color variations that cannot be removed by cleaning.

- C. Exposed Concrete: Concrete surface that can be seen inside or outside of structure regardless of whether concrete is above water, dry at all times, or can be seen when structure is drained.
- D. Hot Weather: As defined in ACI 305.1.
- E. New Concrete: Concrete less than 60 days old.
- F. Top Bars: Horizontal bars placed such that 12 inches of fresh concrete is cast below in single placement.

1.04 SUBMITTALS

A. Action Submittals:

- 1. Mix Design:
 - a. Contain proportions of materials and admixtures to be used on Project, signed by mix designer.
 - b. Documentation of average strength for each proposed mix design in accordance with ACI 301.
 - c. Manufacturer's Certificate of Compliance:
 - 1) Portland cement.
 - 2) Fly ash.
 - 3) Slag cement.
 - 4) Aggregates, including specified class designation for coarse aggregate.
 - 5) Admixtures.
 - 6) Concrete producer has verified compatibility of constituent materials in design mix.
 - d. Test Reports:
 - 1) Cement: Chemical analysis report.
 - 2) Supplementary Cementitious Materials: Chemical analysis report and report of other specified test analyses.
 - 3) Aggregates:
 - a) Deleterious substances in fine aggregate per ASTM C33/C33M, Table 2.
 - b) Deleterious substances in coarse aggregate per ASTM C33/C33M, Table 4.

- 4) Water-Soluble Chloride-Ion Content in Hardened Concrete: One of the following:
 - Test report in accordance with ASTM C1218/C1218M at an age between 28 days and 42 days.
 - Calculation of water-soluble chloride content based on certified chloride content of each constituent material and proportion of constituent material in concrete mixture.
- 5) Alkali Aggregate Reactivity: Where required, in accordance with Article Concrete Mix Design. Include documentation of test results per applicable standards.
- e. Product Data:
 - 1) Admixtures: Manufacturer's product data sheets for each admixture used in proposed mix designs.

B. Informational Submittals:

- 1. Concrete Delivery Tickets:
 - a. For each batch of concrete before unloading at Site.
 - b. In accordance with ASTM C94/C94M, including Requirement 14.2.1. through Requirement 14.2.10.
 - c. Indicate amount of mixing water withheld and maximum amount that may be permitted to be added at Site.

PART 2 PRODUCTS

2.01 FORMWORK

A. Form Materials:

- 1. For exposed areas, use hard plastic finished plywood, overlaid waterproof particle board, or steel in new and undamaged condition, of sufficient strength and surface smoothness to produce specified finish.
- 2. For unexposed areas, use new shiplap or plywood.
- 3. Earth cuts may be used for forming footings.
- B. Beveled Edge Corner Strips: Nonabsorbent material, compatible with form surface, fully sealed on all sides prohibiting loss of paste or water between the two surfaces.

2.02 CONCRETE

A. Materials:

- 1. Cementitious Materials:
 - a. Cement:
 - 1) Portland Cement: Unless otherwise specified, conform to requirements of ASTM C150/C150M.
 - 2) Blended Hydraulic Cement:
 - a) Unless otherwise specified, conform to requirements of ASTM C595/C595M.
 - b) Portland cement used in blended hydraulic cement; conform to requirements of ASTM C150/C150M.
 - 3) Furnish from one source.
 - b. Supplementary Cementitious Materials (SCM):
 - 1) Fly Ash (Pozzolan): Class F fly ash in accordance with ASTM C618, except as modified herein:
 - a) ASTM C618, Table 1, Loss on Ignition: Unless permitted otherwise, maximum 3 percent.
 - 2) Slag Cement: In accordance with ASTM C989/C989M, Grade 100 or Grade 120.
- 2. Aggregates: Unless otherwise permitted, furnish from one source for each aggregate type used in a mix design.
 - a. Aggregates:
 - 1) In accordance with ASTM C33/C33M, except as modified herein.
 - a) Class Designation: 1S unless otherwise specified.
 - b) Free of materials and aggregate types causing popouts, discoloration, staining, or other defects on surface of concrete.
 - c) Alkali Silica Reactivity: See Article Concrete Mix Design.
 - 2) Fine Aggregates:
 - a) In accordance with ASTM C33/C33M, except as modified herein.
 - b) In the event manufactured sand is included in the mix design, the material shall be from the same source as the coarse aggregate.
 - c) Limit deleterious substances in accordance with ASTM C33/C33M, Table 2 and as follows:
 - (1) Limit material finer than 75-μm (No. 200) sieve to 3 percent mass of total sample.
 - (2) Limit coal and lignite to 0.5 percent.

3) Coarse Aggregate:

- a) Natural gravels, combination of gravels and crushed gravels, crushed stone, or combination of these materials containing no more than 15 percent flat or elongated particles (long dimension more than five times the short dimension).
- b) Limit deleterious substances in accordance with ASTM C33/C33M, Table 4 for specified class designation.

3. Admixtures:

- a. Characteristics:
 - 1) Compatible with other constituents in mix.
 - 2) Contain at most, only trace amount chlorides in solution.
 - 3) Furnish type of admixture as recommended by manufacturer for anticipated temperature ranges.
- b. Air-Entraining Admixture: ASTM C260/C260M.
- c. Water-Reducing Admixture: ASTM C494/C494M, Type A or Type D.
- d. Retarding Admixture: ASTM C 494/C 494M, Type B.
- e. Accelerating Admixture: ASTM C 494/C 494M, Type C.
- f. Plasticizing Admixture: ASTM C1017/C1017M, Type I or Type II.
- g. Do not use calcium chloride as an admixture.
- h. Admixtures with no standard, ASTM or other, designation may be used where permitted.
- 4. Water and Ice: Mixing water for concrete and water used to make ice shall be potable water, unless alternative sources of water are permitted.
 - a. Water from alternative sources shall comply with requirements of ASTM C1602/C1602M, and concentration of chemicals in combined mixing water shall be less than:
 - 1) Chloride Content: 1,000 ppm.
 - 2) Sulfate Content as SO₄: 3,000 ppm.
 - 3) Alkalis as $(Na_2O + 0.658 K_2O)$: 600 ppm.
 - 4) Total Solids by Mass: Less than 50,000 ppm.

B. Concrete Mix Design:

1. General:

- a. See Supplement at the end of this section for mix design requirements for each class of concrete used on Project.
- b. Prepare design mixtures for each type and strength of concrete, selecting and proportioning ingredients in accordance with requirements of ACI 301, unless otherwise specified.

- c. Selection of constituent materials and products in mix design are optional, unless specified otherwise.
- d. Unless otherwise permitted, use water-reducing admixture or water-reducing admixture and high-range, water-reducing admixture, or plasticizing admixture in pumped concrete, in concrete with a water-cementitious materials ratio below 0.50, and in concrete that is part of a liquid-containment structure.
- e. Use water-reducing admixture or high-range, water-reducing admixture, or plasticizing admixture to achieve fresh properties that facilitate handling, placing, and consolidating of concrete, and specified hardened properties.
- f. Use water-reducing and retarding admixture when anticipated high temperatures, low humidity, or other adverse placement conditions can adversely affect fresh properties of concrete.
- g. Unless otherwise specified, desired fresh properties of concrete shall be determined by Contractor, and coordinated with concrete producer. Fresh properties of concrete shall remain stable to satisfaction of Contractor, for duration of placement and consolidation, and shall remain in conformance with requirements of Contract Documents.
- h. Contractor is encouraged to consider using environmentally sustainable concrete mix design technologies such as use of supplementary cementitious materials, aggregate packing, and self-consolidating concrete.
- 2. Potential Alkali-Aggregate Reactivity of Concrete:
 - a. Do not use aggregates known to be susceptible to alkali-carbonate reaction (ACR).
 - b. Unless otherwise specified, or unless members are assigned to Exposure Class C0, use one of the three options below for qualifying concrete mixtures to reduce the potential of alkali-silica reaction. Option 3) shall not be used with natural pozzolans, or fly ash that has a CaO content more than 18 percent, or for aggregates with expansions greater than or equal to 0.24 percent when tested in accordance with ASTM C1293. Fly ash with an alkali content greater than 4.0 percent shall not be used in option 2) or 3).
 - 1) For each aggregate used in concrete, the expansion result determined in accordance with ASTM C1293 shall not exceed 0.04 percent at 1 year.
 - 2) For each aggregate used in concrete, the expansion result of the aggregate and cementitious materials combination determined in accordance with ASTM C1567 shall not exceed 0.10 percent at an age of 16 days. Submit supporting data for each aggregate showing expansion in excess of

- 0.10 percent at 16 days when tested in accordance with ASTM C1260.
- 3) Alkali content in concrete (LBA), excluding that from supplementary cementitious materials and the pozzolans and slags in blended cements, shall not exceed 4 lb/yd³ for aggregates with expansions more than or equal to 0.04 percent and less than 0.12 percent or 3 lb/yd³ for aggregates with expansions greater than or equal to 0.12 percent and less than 0.24 percent. Reactivity shall be determined by testing in accordance with ASTM C1293. Alkali content shall be calculated as follows:
 - a) LBA = (cement content, lb/yd^3) × (equivalent alkali content of portland cement in percent/100 percent).

3. Proportions:

- a. Design mix to meet aesthetic, durability, and strength requirements.
- b. Where fly ash is included in mix, minimum fly ash content shall be a minimum of 15 percent of weight of total cementitious materials.

4. Slump:

- a. Unless otherwise specified, and prior to submitting mix design, select a target slump at the point of delivery for concrete mixtures used for Work. Selected target slump shall not exceed 9 inch. Concrete shall not show visible signs of segregation. The target slump indicated on the submittal shall be used as the basis for acceptance during the project. Determine the slump by ASTM C143/C143M.
- b. Slump tolerance shall meet requirements of ACI 117.
- 5. Self-Consolidating Concrete:
 - a. Unless otherwise specified, select a target slump flow at the point of delivery for self-consolidating concrete mixtures. Selected target slump flow shall not exceed 30 inch. Concrete shall not show visible signs of segregation. The target slump flow value indicated on the submittal shall be used as the basis for acceptance during the project. Determine slump flow in accordance with ASTM C1611/C1611M.
 - b. Slump flow tolerances shall be in accordance with ASTM C94/C94M.

C. Concrete Mixing:

1. General: In accordance with ACI 301, except as modified herein.

2. Truck Mixers:

- a. For every truck, test slump, or slump flow of samples taken per ASTM C94/C94M, Paragraph 12.5.1.
- b. Where specified slump is more than 4 inches, and if slump tests differ by more than 2 inches, discontinue use of truck mixer, unless causing condition is corrected and satisfactory performance is verified by additional slump tests.

2.03 REINFORCING STEEL

- A. Deformed Steel Reinforcing Bars: ASTM A615/A615M, Grade 60. Welding of reinforcing bars is not permitted.
- B. Fabrication: Follow CRSI Manual of Standard Practice.

2.04 ANCILLARY MATERIALS

- A. Reinforcing Steel Accessories:
 - 1. Plastic Protected Wire Bar Supports: In compliance with ANSI/CRSI RB 4.1 Class 1 Reinforcement Supports.
 - 2. Stainless Steel Protected Wire Bar Supports: In compliance with ANSI/CRSI RB 4.1 Class 2 Reinforcement Supports, except legs shall be made wholly from stainless steel wire.
 - 3. Precast Concrete Bar Supports: In compliance with ANSI/CRSI RB 4.1 Cementitious (Precast) Reinforcement Supports.
 - a. Precast concrete bar supports shall have equal or greater strength than the surrounding concrete.
 - b. Precast concrete bar supports shall be four square inches minimum, in plan.
 - c. Precast concrete bar supports shall have tie wires.

B. Tie Wire:

- 1. Black, soft-annealed 16-gauge wire.
- 2. Nylon-coated, epoxy-coated, or plastic-coated wire.

C. Evaporation Retardant:

- 1. Optional: Fluorescent fugitive dye color tint that disappears completely upon drying.
- 2. Manufacturers and Products:
 - a. BASF Construction Chemicals, Shakopee, MN; MasterKure ER 50.
 - b. Euclid Chemical Co., Cleveland, OH; Eucobar.

PART 3 EXECUTION

3.01 FORMWORK

A. Form Construction:

- 1. Construct forms and provide smooth-form finish.
- 2. Form 3/4-inch bevels at concrete edges, unless otherwise shown.
- 3. Make joints tight to prevent escape of mortar and to avoid formation of fins.
- 4. Brace as required to prevent distortion during concrete placement.
- 5. On exposed surfaces, locate form ties in uniform pattern or as shown.
- 6. Construct so ties remain embedded in the member with no metal within 1 inch of concrete surface when forms, inserts, and tie ends are removed.

B. Form Removal:

- 1. Nonsupporting forms may be removed after cumulatively curing at not less than 50 degrees F for 24 hours from time of concrete placement if:
 - a. Concrete is sufficiently hard so as not to sustain damage by form removal operations.
 - b. Curing and protection operations are maintained.
- 2. Remove forms with care to prevent scarring and damaging the surface.
- 3. Prior to form removal, provide thermal protection for concrete being placed under the requirements of cold weather concreting.

3.02 PLACING REINFORCING STEEL

A. Unless otherwise specified, in accordance with ACI 301.

B. Accessories:

- 1. Bar Supports in Contact with Ground: Provide precast concrete block supports.
 - a. Do not use brick, broken concrete masonry units, spalls, rocks, construction debris, or similar material for supporting reinforcing steel.
- 2. Bar Supports in Contact with Forms: Unless otherwise noted, bar supports shall be plastic protected wire bar supports, stainless steel protected wire bar supports, or precast concrete block bar supports.
 - a. Use stainless steel protected wire bar supports or precast concrete block bar supports at formed surfaces that will receive abrasive blasting, hydro-blasting, or grinding.

3. Bar supports shall have sufficient strength and stiffness to carry loads without failure, displacement, or significant deformation. Space bar supports so minimum concrete cover is maintained for reinforcing between supports, and location of reinforcement remains within tolerance throughout work.

C. Splices and Laps:

- 1. Lap Splice Reinforcing: Refer to Structural General Notes on Drawings for additional information.
- 2. Tie splices with 18-gauge annealed wire as specified in CRSI Standard.

3.03 CONCRETE PLACEMENT INTO FORMWORK

- A. Inspection: Notify Engineer and Special Inspector at least 1 work day in advance before starting to place concrete.
- B. Placement into Formwork:
 - 1. Reinforcement: Secure in position before placing concrete.
 - 2. Place concrete as soon as possible after leaving mixer, without segregation or loss of ingredients, without splashing forms or steel above, and in layers not over 1.5 feet deep, except for slabs that shall be placed full depth. Place and consolidate successive layers prior to initial set of first layer to prevent cold joints.
 - 3. Placement frequency shall be such that lift lines will not be visible in exposed concrete finishes.
 - 4. Use placement devices (such as, chutes, pouring spouts, and pumps) as required to prevent segregation.
 - 5. Vertical Free Fall Drop to Final Placement:
 - a. Forms 8 Inches or Less Wide: 5 feet.
 - b. Forms Wider than 8 Inches: 8 feet, except as specified.
 - 6. For placements where drops are greater than specified, use placement device such that free fall below placement device conforms to required value.
 - a. Limit free fall to prevent segregation caused by aggregates hitting steel reinforcement.
 - 7. Provide sufficient illumination in the interior of forms so concrete deposition is visible, permitting confirmation of consolidation quality.
- C. Retempering: Not permitted for concrete where cement has partially hydrated.

D. Pumping of Concrete:

- 1. Provide standby pump, conveyor system, crane and concrete bucket, or other system onsite during pumping, for adequate redundancy to ensure completion of concrete placement without cold joints in case of primary placing equipment breakdown.
- 2. Minimum Pump Hose (Conduit) Diameter: 4 inches.
- 3. Replace pumping equipment and hoses (conduits) that are not functioning properly.

E. Maximum Size of Concrete Placements:

- 1. Limit size of each placement to allow for strength gain and volume change as a result of shrinkage.
- 2. Locate expansion, control, and contraction, joints where shown.
- 3. Construction Joints:
 - a. Unless otherwise shown or permitted, locate construction joints as follows:
 - 1) Locate construction joints as shown on Drawings or where approved in the joint location submittal.
 - 2) Locate expansion, control, and contraction joints where shown on Drawings.
 - 3) Provide vertical construction joints at maximum spacing of 40 feet unless shown or approved otherwise.
 - 4) When vertical expansion, contraction, or control joint spacing does not exceed 60 feet, intermediate construction joints are not required.

F. Minimum Time between Adjacent Placements:

- 1. Typical Unless Noted Otherwise: As soon as can safely be done without damaging previously cast concrete or interrupting curing thereof, but not less than 24 hours.
- 2. Expansion or Contraction Joints: 1 day.

3.04 CONSOLIDATION AND VISUAL OBSERVATION

A. Provide at least one standby vibrator in operable condition at placement site prior to placing concrete.

3.05 COLD WEATHER PLACEMENT

- A. Unless otherwise permitted, shall be in accordance with requirements of ACI 301, ACI 306.1, and as follows:
 - 1. Cold weather requirements shall apply when ambient temperature is below 40 degrees F or approaching 40 degrees F and falling.
 - 2. Do not place concrete over frozen earth or against surfaces with frost or ice present. Frozen earth shall be thawed to acceptance of Engineer.
 - 3. Unless otherwise permitted, do not place concrete in contact with surfaces less than 35 degrees F; requirement is applicable to all surfaces including reinforcement and other embedded items.
 - 4. Provide supplemental external heat as needed when other means of thermal protection are unable to maintain minimum surface temperature of concrete as specified in ACI 306.1.
 - 5. Maintain minimum surface temperature of concrete as specified in ACI 306.1 for no less than 3 days during cold weather conditions.
 - 6. Protect concrete from freezing until end of curing period and until concrete has attained a compressive strength of 3,500 psi or design compressive strength if less than 3,500 psi.
- B. Provide maximum and minimum temperature sensors placed on concrete surfaces spaced throughout Work to allow monitoring of concrete surface temperatures representative of Work. Unless otherwise permitted, record surface temperature of concrete at least once every 12 hours during specified curing period.
- C. External Heating Units: Do not exhaust heater flue gases directly into enclosed area as it causes concrete carbonation as a result of concentrated carbon dioxide.
- D. Cure as specified.

3.06 HOT WEATHER PLACEMENT

- A. Prepare ingredients, mix, place, cure, and protect in accordance with ACI 301, ACI 305.1, and as follows:
 - 1. Maintain concrete temperature below 95 degrees F at time of placement, or furnish test data or other proof that admixtures and mix ingredients do not produce flash set plastic shrinkage, or cracking as a result of heat of hydration. Cool ingredients before mixing to maintain fresh concrete temperatures as specified or less.

- 2. Internal concrete temperature in structure shall not exceed 158 degrees F, and maximum temperature differential between center of section and external surfaces of concrete shall not exceed 35 degrees F.
- 3. Provide for windbreaks, shading, fog spraying, sprinkling, ice, wet cover, or other means as necessary to maintain concrete at or below specified temperature.
- 4. Cure as specified.

3.07 CONCRETE BONDING

A. Construction Joints at Existing Concrete:

- 1. Thoroughly clean and roughen existing concrete surfaces to roughness profile of 1/4 inch.
- 2. Saturate surface with water for 24 hours prior to placing new concrete.

3.08 FINISHING UNFORMED SURFACES

A. General:

- 1. Use manual screeds, vibrating screeds, or roller compacting screeds to place concrete level and smooth.
- 2. Do not use "jitterbugs" or other special tools designed for purpose of forcing coarse aggregate away from surface and allowing layer of mortar, which will be weak and cause surface cracks or delamination, to accumulate.
- 3. Do not dust surfaces with dry materials nor add water to surfaces.
- 4. Cure concrete as specified.

B. Slab Tolerances:

- 1. Exposed Slab Surfaces: Comprise of flat planes as required within tolerances specified.
- 2. Slab Finish Tolerances and Slope Tolerances: Crowns on floor surface not too high as to prevent 10-foot straightedge from resting on end blocks, nor low spots that allow block of twice the tolerance in thickness to pass under supported 10-foot straightedge.
- 3. Steel gauge block 5/16-inch thick.
- 4. Finish Slab Elevation: Slope slabs to floor drain and gutter, and shall adequately drain regardless of tolerances.
- 5. Thickness: Maximum 1/4 inch minus or 1/2 inch plus from thickness shown. Where thickness tolerance will not affect slope, drainage, or slab elevation, thickness tolerance may exceed 1/2 inch plus.

3.09 EXPOSED METAL OBJECTS

- A. Remove metal objects not intended to be exposed in as-built condition of structure including wire, nails, and bolts, by chipping back concrete to depth of 1 inch and then cutting or removing metal object.
- B. Repair area of chipped-out concrete as specified for defective areas.

3.10 PROTECTION AND CURING

- A. Protect and cure concrete in accordance with requirements of ACI 301, ACI 308.1, and as follows:
 - 1. Protect fresh concrete from direct rays of sunlight, drying winds, and wash by rain.
 - 2. Keep concrete slabs continuously wet for a 7-day period. Intermittent wetting is not acceptable.
 - 3. Use curing compound only where approved by Engineer.
 - 4. Cure formed surfaces with curing compound applied in accordance with manufacturer's written instructions as soon as forms are removed and finishing is completed.
 - 5. Remove and replace concrete damaged by freezing.
 - 6. Repair areas damaged by construction, using specified repair materials and approved repair methods.

3.11 FIELD QUALITY ASSURANCE AND QUALITY CONTROL

A. General:

- 1. Contractor-Furnished Quality Control: Inspection and testing as required.
- 2. Provide adequate facilities for safe storage and proper curing of concrete test specimens onsite for first 24 hours and for additional time as may be required before transporting to test lab.
- 3. Unless otherwise specified, sample concrete for testing for making test specimens, from point of delivery.
- 4. When concrete is pumped, sample and test air content at point of delivery and at point of placement.
- 5. Evaluation will be in accordance with ACI 301 and Specifications.
- 6. Test specimens shall be made, cured, and tested in accordance with ASTM C31/C31M and ASTM C39/C39M.
- 7. Frequency of testing may be changed at discretion of Engineer.
- 8. Pumped Concrete: Take concrete samples for slump, ASTM C143/C143M, and test specimens, ASTM C31/C31M and ASTM C39/C39M.

9. If measured air content at delivery is greater than specified limit, check test of air content will be performed immediately on a new sample from delivery unit. If check test fails, concrete has failed to meet requirements of Contract Documents. If measured air content is less than lower specified limit, adjustments will be permitted in accordance with ASTM C94/C94M, unless otherwise specified. If check test of adjusted mixture fails, concrete has failed to meet requirements of Contract Documents. Concrete that has failed to meet requirements of Contract Documents shall be rejected.

B. Concrete Strength Test:

- 1. Unless otherwise specified, one specimen at age of 7 days for information, and two 6-inch diameter or when permitted three 4-inch diameter test specimens at age of 28 days for acceptance.
- 2. If result of 7-day concrete strength test is less than 50 percent of specified 28-day strength, extend period of moist curing by 7 additional days.
- 3. Provide a minimum of one spare test specimen per sample. Test spare cylinder as directed by Engineer.
- 4. Segregation Test Objective: Concrete shall stay together when slumped. Segregation is assumed to cause mortar to flow out of mix even though aggregate may stay piled enough to meet slump or slump flow test.
- 5. Test Procedure: Make slump or slump flow test and check for excessive slump or slump flow. Observe to see if mortar or moisture flows from slumped concrete.
- 6. Reject concrete if mortar or moisture separates and flows out of mix.

C. Slab Finish Tolerances and Slope Tolerances:

- 1. Support 10-foot-long straightedge at each end with steel gauge blocks of thicknesses equal to specified tolerance.
- 2. Compliance with designated limits in four of five consecutive measurements is satisfactory, unless defective conditions are observed.

3.12 SUPPLEMENTS

- A. Requirements of concrete mix designs following "End of Section," are a part of this Specification and supplement requirements of Part 1 through Part 3 of this section:
 - 1. Concrete Mix Design, Class 4000F1S1P0C1.

END OF SECTION

CONCRETE MIX DESIGN, CLASS 4000F1S1P0C1

- A. Mix Locations: Where specified in Contract Documents.
- B. Exposure Categories and Classifications: F1S1P0C1.
- C. Mix Properties:
 - 1. Limit water to cementitious materials ratio (W/Cm) in mix design to maximum value of 0.50.
 - 2. Minimum concrete compressive strength (f'c) shall be 4,000 psi at 28 days.
 - a. Designed to conform to shrinkage limits.
 - b. Air-entraining admixtures are prohibited in concrete mixtures and total air content shall not be greater than 3 percent, for the following:
 - 1) Slabs to receive a hard-troweled finish.
 - 2) Slabs to receive a dry shake floor hardener.
 - 3) Slabs to receive a topping placed monolithically as a two-course floor on top of plastic concrete.
 - c. Unless otherwise specified, provide air content based on nominal maximum size of aggregate as follows:

Nominal Maximum Aggregate Size in. ‡	Air Content (%)*
3/8	6.0
1/2	5.5
3/4	5.0
1	4.5
1-1/2	4.5
2§	4.0
3 [§]	3.5

Nominal Maximum Aggregate Size	Air Content
in. ‡	(%)*

‡See ASTM C33/C33M for tolerance on oversize for various nominal maximum size designations.

*Tolerance of air content is $\pm 1-1/2$ percent.

§Air contents apply to total mixture. When testing concretes, however, aggregate particles larger than 1-1/2 inches are to be removed by sieving and air content will be measured on sieved fraction (tolerance on air content as delivered applies to this value). Air content of total mixture is computed from value measured on sieved fraction passing 1-1/2-inch sieve in accordance with ASTM C231/C231M.

- 3. Provide cementitious materials in accordance with one of the following:
 - a. ASTM C150/C150M Type II; inclusion of supplementary cementitious materials in design mix is optional.
 - b. ASTM C150/C150M types other than Type II, plus supplementary cementitious materials in accordance with one of the following:
 - 1) Tricalcium Aluminate Content of Total Cementitious Materials: Maximum 8 percent by weight.
 - 2) Provide documentation of test results in accordance with ASTM C1012/C1012M, for combinations of cementitious materials providing sulfate resistance with expansion less than 0.10 percent at 6 months.
 - 3) ASTM C595/C595M Type IP or Type IS (less than 70), tested to comply with moderate sulfate resistance option (MS).
- 4. Limit water-soluble, chloride-ion content in hardened concrete to 0.30 percent, unless otherwise specified.
 - a. Limits are stated in terms of chloride ions in percent by weight of cement.
 - b. Unless otherwise permitted, provide documentation from concrete tested in accordance with ASTM C1218/C1218M at an age between 28 days and 42 days.
- D. Refer to PART 1 through PART 3 of this section for additional requirements.

SECTION 05 05 19 POST-INSTALLED ANCHORS

PART 1 GENERAL

1.01 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
 - 1. American Concrete Institute (ACI):
 - a. 318, Building Code Requirements for Structural Concrete.
 - b. 355.2, Qualification of Post-Installed Mechanical Anchors in Concrete.
 - c. 355.4, Qualification of Post-Installed Adhesive Anchors in Concrete.
 - 2. American Iron and Steel Institute (AISI): Stainless Steel Type 316.
 - 3. American National Standards Institute (ANSI).
 - 4. ASTM International (ASTM):
 - a. A123/A123M, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
 - b. A143/A143M, Standard Practice for Safeguarding Against Embrittlement of Hot-Dip Galvanized Structural Steel Products and Procedure for Detecting Embrittlement.
 - c. A153/A153M, Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
 - d. A193/A193M, Standard Specification for Alloy-Steel and Stainless Steel Bolting Materials for High Temperature or High Pressure Service and Other Special Purpose Applications.
 - e. A194/A194M, Standard Specification for Carbon Steel, Alloy Steel, and Stainless Steel Nuts for Bolts for High Pressure or High Temperature Service, or Both.
 - f. A380/A380M, Standard Practice for Cleaning, Descaling, and Passivation of Stainless Steel Parts, Equipment, and Systems.
 - g. A385/A385M, Standard Practice for Providing High-Quality Zinc Coatings (Hot-Dip).
 - h. A563, Standard Specification for Carbon and Alloy Steel Nuts.
 - i. A780/A780M, Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.
 - j. A967/A967M, Standard Specification for Chemical Passivation Treatments for Stainless Steel Parts.
 - k. E488/E488M, Standard Test Methods for Strength of Anchors in Concrete Elements.
 - 1. F436/F436M, Standard Specification for Hardened Steel Washers.

- m. F468, Standard Specification for Nonferrous Bolts, Hex Cap Screws, and Socket Head Cap Screws, and Studs for General Use.
- n. F593, Standard Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs.
- o. F594, Standard Specification for Stainless Steel Nuts.
- p. F1554, Standard Specification for Anchor Bolts, Steel, 36, 55, and 105-ksi Yield Strength.
- 5. International Association of Plumbing and Mechanical Officials Uniform ES (IAPMO-UES): Evaluation Reports for Concrete and Masonry Anchors.
- 6. International Code Council Evaluation Service (ICC-ES):
 - a. Evaluation Reports for Concrete and Masonry Anchors.
 - b. AC01, Acceptance Criteria for Expansion Anchors in Masonry Elements.
 - c. AC70, Acceptance Criteria for Fasteners Power-driven into Concrete, Steel and Masonry Elements.
 - d. AC106, Acceptance Criteria for Predrilled Fasteners (Screw Anchors) in Masonry Elements.
 - e. AC193, Acceptance Criteria for Mechanical Anchors in Concrete Elements.
 - f. AC308, Acceptance Criteria for Post-Installed Adhesive Anchors in Concrete Elements. Evaluation Reports for Concrete and Masonry Anchors
- 7. Specialty Steel Industry of North America (SSINA):
 - a. Specifications for Stainless Steel.
 - b. Design Guidelines for the Selection and Use of Stainless Steel.
 - c. Stainless Steel Fabrication.
 - d. Stainless Steel Fasteners.

1.02 DEFINITIONS

- A. Corrosive Area: Containment area or area exposed to delivery, storage, transfer, or use of chemicals.
- B. Exterior Area: Location not protected from weather by a building or other enclosed structure to include buried roof structures.
- C. Interior Dry Area: Location inside building or structure where floor is not subject to liquid spills or wash down, and where wall or roof slab is not common to a water-holding or earth-retaining structure.
- D. Interior Wet Area: Location inside building or structure where floor is sloped to floor drains or gutters and is subject to liquid spills or wash down, or where wall, floor, or roof slab is common to a water-holding or earth-retaining structure.

E. Submerged: Location at or below top of wall of open water-holding structure, such as a basin or channel, or wall, ceiling, or floor surface inside a covered water-holding structure, or exterior belowgrade wall or roof surface of water-holding structure, open or covered.

1.03 SUBMITTALS

A. Action Submittals:

1. Shop Drawings: Specific instructions for concrete anchor installation, including drilled hole size and depth, preparation, placement, procedures, and instructions for safe handling of anchoring systems.

B. Informational Submittals:

- 1. Concrete Anchors:
 - a. Manufacturer's product description and installation instructions.
 - b. Current ICC-ES or IAPMO-UES Report for each type of post-installed anchor to be used.
- 2. Passivation method for stainless steel members.

1.04 QUALITY ASSURANCE

A. Qualifications:

- 1. Installers of adhesive anchors horizontally or upwardly inclined to support sustained tension loads shall be certified by an applicable certification program. Certification shall include written and performance tests in accordance with the ACI/CRSI Adhesive Installer Certification Program or equivalent.
- 2. Galvanized Coating Applicator: Company specializing in hot-dip galvanizing after fabrication and following procedures of Quality Assurance Manual of the American Galvanizers Association.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Package stainless steel items in a manner to provide protection from carbon impregnation.
- B. Protect hot-dip galvanized finishes from damage as a result of metal banding and rough handling.

PART 2 PRODUCTS

2.01 GENERAL

A. Unless otherwise indicated, meet the following requirements:

Item	ASTM Reference				
Stainless Steel:					
Threaded Rods	F593, AISI Type 316, Condition CW				
Nuts*	F594, AISI Type 316, Condition CW				

^{*}Nuts of other grades and styles having specified proof load stresses greater than specified grade and style are also suitable. Nuts must have specified proof load stresses equal to or greater than minimum tensile strength of specified threaded rod.

B. Bolts, Washers, and Nuts: Use stainless steel, hot-dip galvanized steel, and zinc-plated steel material types as indicated in Fastener Schedule at end of this section.

2.02 POST-INSTALLED CONCRETE ANCHORS

A. General:

- 1. AISI Type 316 stainless, hot-dip galvanized or zinc-plated steel, as shown in Fastener Schedule at end of this section.
- 2. Post-installed anchor systems used in concrete shall be approved by ICC Evaluation Services Report or equivalent for use in cracked concrete and for short-term and long-term loads including wind and earthquake.
- 3. Mechanical Anchors: Comply with the requirements of ICC-ES AC193 or ACI 355.2.
- 4. Adhesive Anchors: Comply with the requirements of ICC-ES AC308 or ACI 355.4.

B. Adhesive Anchors:

- 1. Threaded Rod:
 - a. Diameter as shown on Drawings.
 - b. Length as required to provide minimum depth of embedment indicated and thread projection required.
 - c. Clean and free of grease, oil, or other deleterious material.

2. Adhesive:

- a. Two-component, insensitive to moisture, designed to be used in adverse freeze/thaw environments.
- b. Cure Temperature, Pot Life, and Workability: Compatible for intended use and anticipated environmental conditions.
- 3. Packaging and Storage:
 - a. Disposable, self-contained system capable of dispensing both components in proper mixing ratio and fitting into a manually or pneumatically operated caulking gun.
 - b. Store adhesive on pallets or shelving in a covered storage area.
 - c. Package Markings: Include manufacturer's name, product name, batch number, product expiration date, ANSI hazard classification, and appropriate ANSI handling precautions.
 - d. Dispose of When:
 - 1) Shelf life has expired.
 - 2) Stored other than in accordance with manufacturer's instructions.
- 4. Manufacturers and Products:

http://www.icc-es.org/Reports/pdf_files/load_file.cfm?file_type=pdf&file_name=ESR-4057.pdf

- a. Hilti, Inc., Tulsa, OK; HIT Doweling Anchor System, HIT RE 500 V3 (ESR-3814).
- b. Simpson Strong-Tie Co., Inc., Pleasanton, CA; SET-3G Epoxy Adhesive Anchors. (ESR-4057).
- c. DeWalt/Powers Fasteners, Brewster NY; Pure 110+ Epoxy adhesive anchor system (ESR-3298).

PART 3 EXECUTION

3.01 CONCRETE ANCHORS

- A. Begin installation only after concrete to receive anchors is a minimum of 21 days old or has attained design strength whichever requires a longer duration.
- B. Locate existing reinforcing with Ground Penetrating Radar or other method approved by Engineer prior to drilling. Coordinate with Engineer to adjust anchor locations where installation would result in hitting reinforcing.
- C. Install in accordance with written manufacturer's instructions.
- D. Provide minimum embedment, edge distance, and spacing as indicated on Drawings.

- E. Use only drill type and bit type and diameter recommended by anchor manufacturer. Use rotary hammer drill unless otherwise approved by Engineer. Core drilling may only be used if specifically allowed by the Engineer.
- F. Clean hole of debris and dust per manufacturer's requirements.
- G. When unidentified embedded steel, rebar, or other obstruction is encountered in drill path, slant drill to clear obstruction. If drill must be slanted more than indicated in manufacturer's installation instructions to clear obstruction, notify Engineer for direction on how to proceed.

H. Adhesive Anchors:

- 1. Unless otherwise approved by Engineer and adhesive manufacturer:
 - a. Do not install adhesive anchors when temperature of concrete is below 40 degrees F or above 100 degrees F.
 - b. Do not install prior to concrete attaining an age of 21 days.
 - c. Remove any standing water from hole with oil-free compressed air. Inside surface of hole shall be dry.
 - d. Do not disturb anchor during recommended curing time.
 - e. Do not exceed maximum torque as specified in manufacturer's instructions.
- I. Prestressed Concrete: Do not use drilled-in anchors in prestressed or posttensioned concrete members without Engineer's prior approval unless specifically shown on Drawings.

3.02 FASTENER SCHEDULE

A. Unless indicated otherwise on Drawings, provide fasteners as follows:

Service Use and Location	Product	Remarks							
Post-Installed Anchors for Metal Components to Cast-in-Place Concrete.									
Exterior	Stainless steel anchors	Verify product acceptability and manufacturer's requirements if anchor installation will occur in							
		an overhead application							

- B. Antiseizing Lubricant: Use on all stainless-steel threads.
- C. Do not use adhesive anchors to support fire-resistive construction or where ambient temperature will exceed 120 degrees F.

END OF SECTION

SECTION 05 50 00 METAL FABRICATIONS

PART 1 GENERAL

1.01 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
 - 1. American Galvanizers Association (AGA):
 - a. Inspection of Hot-Dip Galvanized Steel Products.
 - b. Quality Assurance Manual.
 - 2. American Institute of Steel Construction (AISC):
 - a. 201, Certification Program for Structural Steel Fabricators.
 - b. 206, Certification Program for Structural Steel Erectors— Standard for Structural Steel Erectors.
 - c. 303, Code of Standard Practices for Steel Buildings and Bridges.
 - d. 325, Steel Construction Manual.
 - e. 326, Detailing for Steel Construction.
 - f. 341, Seismic Provisions for Structural Steel Buildings.
 - g. 360, Specification for Structural Steel Buildings.
 - h. 420, Certification Standard for Shop Application of Complex Protective Coating Systems.
 - 3. American National Standards Institute (ANSI).
 - 4. American Society of Safety Engineers (ASSE): A10.11, Safety Requirements for Personnel and Debris Nets.
 - 5. American Welding Society (AWS):
 - a. D1.1/D1.1M, Structural Welding Code Steel.
 - 6. ASTM International (ASTM):
 - a. A36/A36M, Standard Specification for Carbon Structural Steel.
 - b. A53/A53M, Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
 - c. A108, Standard Specification for Steel Bar, Carbon and Alloy, Cold-Finished.
 - d. A123/A123M, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
 - e. A143/A143M, Standard for Safeguarding Against Embrittlement of Hot-Dip Galvanized Structural Steel Products and Procedure for Detecting Embrittlement.
 - f. A153/A153M, Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.

- g. A193/A193M, Standard Specification for Alloy-Steel and Stainless Steel Bolting for High Temperature or High Pressure Service and Other Special Purpose Applications.
- h. A194/A194M, Standard Specification for Carbon and Alloy Steel Nuts for Bolts for High Pressure or High Temperature Service, or Both.
- A240/A240M, Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications.
- j. A276, Standard Specification for Stainless Steel Bars and Shapes.
- k. A283/A283M, Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates.
- 1. A307, Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength.
- m. A380, Standard Practice for Cleaning, Descaling, and Passivation of Stainless Steel Parts, Equipment, and Systems.
- n. A384/A384M, Standard Practice for Safeguarding Against Warpage and Distortion During Hot-Dip Galvanizing of Steel Assemblies.
- o. A385/A385M, Standard Practice for Providing High-Quality Zinc Coatings (Hot-Dip).
- p. A489, Standard Specification for Carbon Steel Lifting Eyes.
- q. A500/A500M, Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
- r. A501, Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing.
- s. A563, Standard Specification for Carbon and Alloy Steel Nuts.
- t. A653/A653M, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- u. A780/A780, Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.
- v. A786/A786M, Standard Specification for Hot-Rolled Carbon, Low-Alloy, High-Strength Low-Alloy, and Alloy Steel Floor Plates.
- w. A967, Standard Specification for Chemical Passivation Treatments for Stainless Steel Parts.
- x. A992/A992M, Standard Specification for Structural Steel Shapes.
- y. A1085, Standard Specification for Cold-Formed Welded Carbon Steel Hollow Structural Sections (HSS).
- z. C881/C881M, Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete.

- aa. D1056, Standard Specification for Flexible Cellular Materials Sponge or Expanded Rubber.
- bb. F436, Standard Specification for Hardened Steel Washers.
- cc. F468, Standard Specification for Nonferrous Bolts, Hex Cap Screws, and Studs for General Use.
- dd. F593, Standard Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs.
- ee. F594, Standard Specification for Stainless Steel Nuts.
- ff. F844, Standard Specification for Washers, Steel, Plain (Flat), Unhardened for General Use.
- gg. F1554, Standard Specification for Anchor Bolts, Steel, 36, 55, and 105-ksi Yield Strength.
- hh. F3125, Standard Specification for High Strength Structural Bolts, Steel and Alloy Steel, Heat Treated, 120 ksi (830 MPa) and 150 ksi (1040 MPa) Minimum Tensile Strength, Inch and Metric Dimensions.
- 7. NSF International (NSF): 61, Drinking Water System Components—Health Effects.
- 8. Occupational Safety and Health Administration (OSHA):
 - a. 29 CFR 1910.23, Ladders.
 - b. 29 CFR 1910.28, Duty to Have Fall Protection and Falling Object Protection.
 - c. 29 CFR 1910.29, Fall Protection Systems and Falling Object Protection-Criteria and Practices.
 - d. 29 CFR 1926.105, Safety Nets.
 - e. 29 CFR 1926.502, Fall Protections Systems Criteria and Practices.
- 9. Specialty Steel Industry of North America (SSINA):
 - a. Specifications for Stainless Steel.
 - b. Design Guidelines for the Selection and Use of Stainless Steel.
 - c. Stainless Steel Fabrication.
 - d. Stainless Steel Fasteners.

1.02 DEFINITIONS

- A. Anchor Bolt: Cast-in-place anchor; concrete or masonry.
- B. Corrosive Area: Containment area or area exposed to delivery, storage, transfer, or use of chemicals.
- C. Exterior Area: Location not protected from weather by building or other enclosed structure.

- D. Interior Dry Area: Location inside building or structure where floor is not subject to liquid spills or washdown, nor where wall or roof slab is common to a water-holding or earth-retaining structure.
- E. Interior Wet Area: Location inside building or structure where floor is sloped to floor drains or gutters and is subject to liquid spills or washdown, or where wall, floor, or roof slab is common to a water-holding or earth-retaining structure.
- F. Submerged: Location at or below top of wall of open water-holding structure, such as basin or channel, or wall, ceiling or floor surface inside a covered water-holding structure, or exterior belowgrade wall or roof surface of water-holding structure, open or covered.

1.03 SUBMITTALS

A. Action Submittals:

- 1. Shop Drawings: Metal fabrications, including welding and fastener information.
- 2. Samples: Color samples of abrasive stair nosings.

B. Informational Submittals:

- 1. U-Channel Concrete Inserts:
 - a. Manufacturer's product description.
 - b. Allowable load tables.
- Pre-engineered Ladders: Letter of certification that ladder meets OSHA 29 CFR 1910.23 requirements, ALI 14.3 requirements and specifications herein.
- 3. Passivation method for stainless steel members.
- 4. Galvanized coating applicator qualifications.
- 5. Hot-Dip Galvanizing: Certificate of compliance signed by galvanizer, with description of material processed and ASTM standard used for coating.

1.04 QUALITY ASSURANCE

A. Qualifications:

1. Galvanized Coating Applicator: Company specializing in hot-dip galvanizing after fabrication and following procedures of Quality Assurance Manual of the American Galvanizers Association.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Insofar as practical, factory assemble specified items. Package assemblies, which have to be shipped unassembled to protect materials from damage and tag to facilitate identification and field assembly.
- B. Package stainless steel items to provide protection from carbon impregnation.
- C. Protect painted coatings and hot-dip galvanized finishes from damage as a result of metal banding and rough handling. Use padded slings and straps.
- D. Store fabricated items in dry area, not in direct contact with ground.

PART 2 PRODUCTS

2.01 GENERAL

- A. For hot-dip galvanized steel that is exposed to view and does not receive paint, limit the combined phosphorus and silicon content to 0.04 percent. For steels that require a minimum of 0.15 percent silicon (such as plates over 1.5 inches thick for ASTM A36/A36M steel), limit maximum silicon content to 0.21 percent and phosphorous content to 0.03 percent.
- B. Unless otherwise indicated, meet the following requirements:

Item	ASTM Reference
Other Steel Shapes and Pltes	A36/A36M or A572/A572M Grade 50 or A992/A992M for older steel shapes

C. Bolts, Washers, and Nuts: Use stainless steel, hot-dip galvanized steel, zincplated steel as indicated in Fastener Schedule at end of this section.

2.02 POST-INSTALLED CONCRETE AND MASONRY ANCHORS

A. See Section 05 05 19, Post-Installed Anchors.

2.03 FABRICATION

A. General:

- 1. Finish exposed surfaces smooth, sharp, and to well-defined lines.
- 2. Furnish necessary rabbets, lugs, and brackets so work can be assembled in neat, substantial manner.

- 3. Conceal fastenings where practical; where exposed, flush countersink.
- 4. Drill metalwork and countersink holes as required for attaching hardware or other materials.
- 5. Grind cut edges smooth and straight. Round sharp edges to small uniform radius. Grind burrs, jagged edges, and surface defects smooth.
- 6. Fit and assemble in largest practical sections for delivery to Site.

B. Materials:

- 1. Use steel shapes, unless otherwise noted.
- 2. Steel to be hot-dip galvanized: Limit silicon content to less than 0.04 percent or to between 0.15 percent and 0.25 percent.
- 3. Stainless Steel Built-up Shapes: Fabricate built-up shapes in accordance with ASTM A1069/A1069M.

C. Welding:

- 1. Weld connections and grind exposed welds smooth. When required to be watertight, make welds continuous.
- 2. Welded fabrications shall be free from twisting or distortion caused by improper welding techniques.
- 3. Steel: Meet fabrication requirements of AWS D1.1/D1.1M, Section 5.
- 4. Complete welding before applying finish.

D. Galvanizing:

- Fabricate steel to be galvanized in accordance with ASTM A143/A143M, ASTM A384/A384M, and ASTM A385/A385M. Avoid fabrication techniques that could cause distortion or embrittlement of the steel.
- 2. Provide venting and drain holes for tubular members and fabricated assemblies in accordance with ASTM A385/A385M.
- 3. Remove welding slag, splatter, burrs, grease, oil, paint, lacquer, and other deleterious material prior to delivery for galvanizing.
- 4. Remove by blast cleaning or other methods surface contaminants and coatings not removable by normal chemical cleaning process in the galvanizing operation.
- 5. Hot-dip galvanize steel members, fabrications, and assemblies after fabrication in accordance with ASTM A123/A123M.
- 6. Hot-dip galvanize bolts, nuts, washers, and hardware components in accordance with ASTM A153/A153M. Oversize holes to allow for zinc alloy growth. Shop assemble bolts and nuts.
- 7. Galvanized steel sheets in accordance with ASTM A653/A653M.

- 8. Galvanize components of bolted assemblies separately before assembly. Galvanizing of tapped holes is not required.
- E. Fitting: Where movement of fabrications is required or shown, cut, fit, and align items for smooth operation. Make corners square and opposite sides parallel.
- F. Accessories: Furnish as required for a complete installation. Fasten by welding or with stainless steel bolts or screws.

2.04 SOURCE QUALITY CONTROL

- A. Visually inspect all fabrication welds and correct deficiencies.
 - 1. Steel: AWS D1.1/D1.1M, Section 6 and Table 6.1, Visual Inspection Acceptance Criteria.

B. Hot-Dip Galvanizing:

- 1. An independent testing agency, shall be retained by Contractor and approved by Engineer to inspect and test hot-dip galvanized fabricated items in accordance with ASTM A123/A123M and ASTM A153/A153M.
- 2. Visually inspect and test for thickness and adhesion of zinc coating for minimum of three test samples from each lot in accordance with ASTM A123/A123M and ASTM A153/A153M.
- 3. Reject and retest nonconforming articles in accordance with ASTM A123/A123M and ASTM A153/A153M.

PART 3 EXECUTION

3.01 INSTALLATION OF METAL FABRICATIONS

A. General:

- 1. Install metal fabrications plumb and level, accurately fitted, free from distortion or defects.
- 2. Install rigid, substantial, and neat in appearance.
- 3. Install manufactured products in accordance with manufacturer's recommendations.
- 4. Obtain Engineer approval prior to field cutting steel members or making adjustments not scheduled.
- 5. Do not remove mill markings from concealed surfaces.

- Remove inked or painted identification marks on exposed surfaces not otherwise coated after installed material has been inspected and approved.
- 7. Snug-tighten bolts, unless otherwise specified.
- B. Steel: Fabrication, erection, connections, bolted and welded construction shall be in accordance with AISC Steel Construction Manual and AWS D1.1.

3.02 ELECTROLYTIC PROTECTION

A. Galvanized Steel:

- 1. Do not apply protective coating to galvanized steel anchor bolts or galvanized steel welded anchor studs, unless indicated otherwise.
- 2. Allow coating to dry before installation of the material.
- 3. Protect coated surfaces during installation.
- 4. Should coating become marred, prepare and touch up in accordance with paint manufacturer's written instructions.

3.03 PAINTING

- A. Repair of Damaged Hot-Dip Galvanized Coating:
 - 1. Conform to ASTM A780/A780M.
 - 2. For minor repairs at abraded areas, use sprayed zinc conforming to ASTM A780/A780M.
 - 3. For flame cut or welded areas, use zinc-based solder, or zinc sticks, conforming to ASTM A780/A780M.
 - 4. Use magnetic gauge to determine thickness is equal to or greater than base galvanized coating.

END OF SECTION

Attachment 4 Waste Disposal Documentation

Waste Disposal Tracking Log

Waukegan Harbor OU1 Wetland Construction Waukegan, Illinois

Site/Task Description	Container Type	Container Designation/ No.	Accumulation Start Date	Matrix	Waste Profile No. and/or Sample ID	Transporter	Date Transported	Disposal Facility	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA, then State)	Disposal Facility Date	Manifest Number	Disposal Method	Quantity	Units	Cert. of Disp/ Destruc Date	Comments/ Notes
OU1	end dump	N/A	18-Aug-20	Concrete	#006527	Kirschoffer Truck Services Inc.	18-Aug-20	Zion Landfill	Nonhaz	N/A	18-Aug-20	1246937	Landfill	16.34	tons	18-Aug-20	
OU1	end dump	N/A	18-Aug-20	Concrete	#006527	Kirschoffer Truck Services Inc.	18-Aug-20	Zion Landfill	Nonhaz	N/A	18-Aug-20	1246954	Landfill	17.13	tons	18-Aug-20	
OU1	end dump	N/A	18-Aug-20	Concrete	#006527	Kirschoffer Truck Services Inc.	18-Aug-20	Zion Landfill	Nonhaz	N/A	18-Aug-20	1246992	Landfill	14.97	tons	18-Aug-20	
OU1	end dump	N/A	18-Aug-20	Concrete	#006527	Kirschoffer Truck Services Inc.	18-Aug-20	Zion Landfill	Nonhaz	N/A	18-Aug-20	1247025	Landfill	16.11	tons	18-Aug-20	
OU1	end dump	N/A	18-Aug-20	Concrete	#006527	Kirschoffer Truck Services Inc.	18-Aug-20	Zion Landfill	Nonhaz	N/A	18-Aug-20	1247047	Landfill	17.04	tons	18-Aug-20	
OU1	end dump	N/A	18-Aug-20	Concrete	#006527	Kirschoffer Truck Services Inc.	18-Aug-20	Zion Landfill	Nonhaz	N/A	18-Aug-20	1246929	Landfill	23.95	tons	18-Aug-20	
OU1	end dump	N/A	18-Aug-20	Concrete	#006527	Kirschoffer Truck Services Inc.	18-Aug-20	Zion Landfill	Nonhaz	N/A	18-Aug-20	1246947	Landfill	23.45	tons	18-Aug-20	
OU1	end dump	N/A	18-Aug-20	Concrete	#006527	Kirschoffer Truck Services Inc.	18-Aug-20	Zion Landfill	Nonhaz	N/A	18-Aug-20	1246981	Landfill	22.06	tons	18-Aug-20	
OU1	end dump	N/A	18-Aug-20	Concrete	#006527	Kirschoffer Truck Services Inc.	18-Aug-20	Zion Landfill	Nonhaz	N/A	18-Aug-20	1246999	Landfill	22.75	tons	18-Aug-20	
OU1	end dump	N/A	18-Aug-20	Concrete	#006527	Kirschoffer Truck Services Inc.	18-Aug-20	Zion Landfill	Nonhaz	N/A	18-Aug-20	1247030	Landfill	24.79	tons	18-Aug-20	
OU1	end dump	N/A	18-Aug-20	Concrete	#006527	Kirschoffer Truck Services Inc.	18-Aug-20	Zion Landfill	Nonhaz	N/A	18-Aug-20	1247058	Landfill	14.61	tons	18-Aug-20	
OU1	end dump	N/A	7-Oct-20	Soil	#006533	Kirschoffer Truck Services Inc.	7-Oct-20	Zion Landfill	Nonhaz	N/A	7-Oct-20	1254028	Landfill	24.03	tons	7-Oct-20	
OU1	end dump	N/A	7-Oct-20	Soil	#006533	Kirschoffer Truck Services Inc.	7-Oct-20	Zion Landfill	Nonhaz	N/A	7-Oct-20	1253965	Landfill	25.56	tons	7-Oct-20	
OU1	end dump	N/A	7-Oct-20	Soil	#006533	Kirschoffer Truck Services Inc.	7-Oct-20	Zion Landfill	Nonhaz	N/A	7-Oct-20	1253982	Landfill	24.97	tons	7-Oct-20	
OU1	end dump	N/A	7-Oct-20	Soil	#006533	Kirschoffer Truck Services Inc.	7-Oct-20	Zion Landfill	Nonhaz	N/A	7-Oct-20	1254009	Landfill	24.49	tons	7-Oct-20	
OU1	end dump	N/A	7-Oct-20	Soil	#006533	Kirschoffer Truck Services Inc.	7-Oct-20	Zion Landfill	Nonhaz	N/A	7-Oct-20	1254035	Landfill	20.28	tons	7-Oct-20	
OU1	end dump	N/A	7-Oct-20	Soil	#006533	Kirschoffer Truck Services Inc.	7-Oct-20	Zion Landfill	Nonhaz	N/A	7-Oct-20	1253963	Landfill	24.9	tons	7-Oct-20	

Waste Disposal Tracking Log

Waukegan Harbor OU1 Wetland Construction Waukegan, Illinois

Site/Task Description	Container Type	Container Designation/ No.	Accumulation Start Date	Matrix	Waste Profile No. and/or Sample ID	Transporter	Date Transported	Disposal Facility	Waste Type (Haz, Nonhaz, TSCA)	Waste Code (RCRA, then State)	Disposal Facility Date	Manifest Number	Disposal Method	Quantity	Units	Cert. of Disp/ Destruc Date	Comments/ Notes
OU1	end dump	N/A	7-Oct-20	Soil	#006533	Kirschoffer Truck Services Inc.	7-Oct-20	Zion Landfill	Nonhaz	N/A	7-Oct-20	1253979	Landfill	25.86	tons	7-Oct-20	
OU1	end dump	N/A	7-Oct-20	Soil	#006533	Kirschoffer Truck Services Inc.	7-Oct-20	Zion Landfill	Nonhaz	N/A	7-Oct-20	1254007	Landfill	25.58	tons	7-Oct-20	
OU1	end dump	N/A	7-Oct-20	Soil	#006533	Kirschoffer Truck Services Inc.	7-Oct-20	Zion Landfill	Nonhaz	N/A	7-Oct-20	1254031	Landfill	23.91	tons	7-Oct-20	
OU1	end dump	N/A	7-Oct-20	Soil	#006533	Kirschoffer Truck Services Inc.	7-Oct-20	Zion Landfill	Nonhaz	N/A	7-Oct-20	1253967	Landfill	31.38	tons	7-Oct-20	
OU1	end dump	N/A	7-Oct-20	Soil	#006533	Kirschoffer Truck Services Inc.	7-Oct-20	Zion Landfill	Nonhaz	N/A	7-Oct-20	1253985	Landfill	19.39	tons	7-Oct-20	
OU1	end dump	N/A	7-Oct-20	Soil	#006533	Kirschoffer Truck Services Inc.	7-Oct-20	Zion Landfill	Nonhaz	N/A	7-Oct-20	1254011	Landfill	25.27	tons	7-Oct-20	
OU1	end dump	N/A	7-Oct-20	Soil	#006533	Kirschoffer Truck Services Inc.	7-Oct-20	Zion Landfill	Nonhaz	N/A	7-Oct-20	1254039	Landfill	12.44	tons	7-Oct-20	
OU1	end dump	N/A	7-Oct-20	Soil	#006533	Kirschoffer Truck Services Inc.	7-Oct-20	Zion Landfill	Nonhaz	N/A	7-Oct-20	1253970	Landfill	24.36	tons	7-Oct-20	
OU1	end dump	N/A	7-Oct-20	Soil	#006533	Kirschoffer Truck Services Inc.	7-Oct-20	Zion Landfill	Nonhaz	N/A	7-Oct-20	1253993	Landfill	24.9	tons	7-Oct-20	
OU1	end dump	N/A	7-Oct-20	Soil	#006533	Kirschoffer Truck Services Inc.	7-Oct-20	Zion Landfill	Nonhaz	N/A	7-Oct-20	1254014	Landfill	24.74	tons	7-Oct-20	
OU1	end dump	N/A	7-Oct-20	Soil	#006533	Kirschoffer Truck Services Inc.	7-Oct-20	Zion Landfill	Nonhaz	N/A	7-Oct-20	1253959	Landfill	27.08	tons	7-Oct-20	
OU1	end dump	N/A	7-Oct-20	Soil	#006533	Kirschoffer Truck Services Inc.	7-Oct-20	Zion Landfill	Nonhaz	N/A	7-Oct-20	1253975	Landfill	23.58	tons	7-Oct-20	
OU1	end dump	N/A	7-Oct-20	Soil	#006533	Kirschoffer Truck Services Inc.	7-Oct-20	Zion Landfill	Nonhaz	N/A	7-Oct-20	1253998	Landfill	23.84	tons	7-Oct-20	
OU1	end dump	N/A	7-Oct-20	Soil	#006533	Kirschoffer Truck Services Inc.	7-Oct-20	Zion Landfill	Nonhaz	N/A	7-Oct-20	1254021	Landfill	26.84	tons	7-Oct-20	

Customer By Contract_GroupedVehicle

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Customer	TicketDate	Ticket #	Contract	Material	Reference	Disposal Qty
				272_KTSI		
95617	8/18/20	1246937	N006527	C-Debrisnex External	164	16.34
95617	8/18/20	1246954	N006527	C-Debrisnex External	10	17.13
95617	8/18/20	1246992	N006527	C-Debrisnex External	28	14.97
95617	8/18/20	1247025	N006527	C-Debrisnex External	36	16.11
95617 ————	8/18/20	1247047	N006527	C-Debrisnex External	42	17.04
						81.59
				393_CLF		
95617	8/18/20	1246929	N006527	C-Debrisnex External	162	23.95
95617	8/18/20	1246947	N006527	C-Debrisnex External	2	23.45
95617	8/18/20	1246981	N006527	C-Debrisnex External	20	22.06
95617	8/18/20	1246999	N006527	C-Debrisnex External	28	22.75
95617	8/18/20	1247030	N006527	C-Debrisnex External	38	24.79
95617	8/18/20	1247058	N006527	C-Debrisnex External	44	14.61
						131.61

Customer	TicketDate	Ticket #	Contract	Material	Reference	Disposal Qty 213.20
	Total					
Total		213.20				
N006527						

213.20





Designated Facility	ZION LANDFILL		Internal No. 002/60
Section I	GENERATOR		
a. Generator Name:	US EPA Region 5	b.Generating Localid	on: _100 East Sea Horse Dr
c. Address;	77 West Jackson Blvd. Mail Code: SR-6J Chicago, il 60604	d. Address:	Waukegan II 60085
e. Phone No.:	312-886-6551		
	the generating facility differs from the generator, provide:	f. Phone Number.	312-886-6551
g. Owners Reps Nam		16.00	Units
h. Owners Phone No.		K. Quantity- Ld 1	Ld 5
	012-000-0001	0 . 47	
i Waste Profile No.	#006527	Quantity- Ld 2 Quantity- Ld 3	Ld 7
j. Description of Wast	te: C-Debris (Concrete)	Quantity- Ld 4	Ld 8 Units - y = yard o = olher
proper condition for	at the above named material is not hazardous wastable state law, has been properly described, classified transportation according to applicable regulations or listed on line i. Signature Agent Name Signature	ed and packaged, as	nd is in
Section It	TRANSPORTER		
a. Transporter Name:	Kirschhoffer Truck Service, Inc		NOTES / COMMENTS
b. Address;	43185 N. Hwy 41	7	
	Zion, II 60099	One Eng dum	np Truck Approx. 22 cyds
c. Driver Name / Title:	Bill Teltz-	7	
d. Phone:	847-395-6202	7	
Truck Number	772	7	
. Vehicle License No.	/ State:IL # 815360	7	
Acknowledgement of F	O8/18/2020 Shipment Date	-	
Section III Site Name: Physical Address:	DESTINATION Advanced Disposal Services Zion Landfill, Inc. 701 Green Bay Rd. Zion, IL 60098	_c. Phone Number; _d. Mailing Address	(847) 599-5921 SAME
. Discrepancy Indication	on Space:		
hereby certify that the	above named material has been accepted and to the best of	my knowledge the forego	ping is true and accurate.
ame of Authorized Ag	- hach I	1	Receipt Date
			•

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ZION LANDFILL



Designated Facility	ZION LANDFILL		Internal No. aoAl O
Section I	GENERATOR		
a. Generator Name;	US EPA Region 5	h Gonomia I	400 5
c. Address;	77 West Jackson Blvd. Mail Code: SR-6J	d. Address;	on: 100 East Sea Horse Dr Waukegan Jl 60085
e. Phone No.:	Chicago, Il 60604		
	312-886-6551 the generating facility differs from the generator, provide:	f. Phone Number:	312-886-6551
g. Owners Reps Nan			Units
h. Owners Phone No		K. Quantity- Ld 1	Ld5
		Quantity- Ld 2	Ld 6
i. Waste Profile No.	#006527	Quantity- Ld 3	Ld 7
j. Description of Was	(00.10.010)	Quantity- Ld 4	Ld 8 Units - y = yard o = other
proper condition for	at the above named material is not hazardous wasterable state law, has been properly described, classific or transportation according to applicable regulations are listed on line i. Set U.S. EPA Region 5 Agent Name Signature	ed and packaged to	nd in in
Section II	TRANSPORTER		
a. Transporter Name:	Kirschhoffer Truck Service, Inc		NOTES / COMMENTS
b. Address:	43185 N. Hwy 41	7	
c. Driver Name / Title: d. Phone: e Truck Number	Zion, II 60099 Bill Telt 847-395-6202 277	One End durr	np Truck Approx. 22 cyds
f. Vehicle License No.	/State:IL]	
Acknowledgement of F	Receipt of Materials 08/18/2020 Shipment Date		
Section III a. Site Name: b. Physical Address:	DESTINATION Advanced Disposal Services Zion Lendfill, Inc. 701 Green Bay Rd. Zion, IL 80099	c. Phone Number: d. Mailing Address	(847) 599-5921 SAME
e. Discrepancy Indication	on Space:		
I hereby certify that the	above named material has been accepted and to the best of r	ny kn owied ge the forego	ing is true and accurate.
Name of Authorized Agr	ent Signature/		Receipt Date

45617



Designated Facility	ZION LANDFILL	Internal No. 006 7
Section (GENERATOR	
a. Generator Name:	US EPA Region 5	h Constitue Leveline 400 F
c. Address:	77 West Jackson Blvd	b.Generating Location: 100 East Sea Horse Dr
	Mail Code: SK-6J Chicago, II 60604	d. Address: Waukegan II 60085
e. Phone No.:	312-886-6551	f. Phone Number: 312-886-6551
If the owner of	the generating facility differs from the generator, provide:	
g. Owners Reps Nam	ie:Sarah Roffes	K. Quantity- Ld 1 Units
h. Owners Phone No.	312-886-6551	K. Quantity- Ld 1 Ld 5 Ld 5
i. Wasle Profile No.	: #006527	Quantity- Ld 3 Ld 7
j. Description of Wast	e: C-Debris (Concrete)	Quantity- Ld 4 Ld 8
ZOT OF AITY applica	at the above named material is not hazardous was able state law, has been properly described, class or transportation according to applicable regulationar listed on line i. ### Comparison of the comparison of	ified and packaged, and in in
	Agent Name Signature	Shipment Date
Section	TRANSPORTER	NOTES / COMMENTS
a. Transporter Name:	Kirschhoffer Truck Service, Inc	NOTES / COMMENTS
b. Address:	43185 N. Hwy 41	One End dump Truck Approx. 22 cyds
c. Driver Name / Title:	Zion, 11 60099	
d. Phone:	847-395-6202	_
Truck Number . Vehicle License No. /	Stale: IL P \$15360	-
Acknowledgement of R		_
Section III . Site Name; . Physical Address;	DESTINATION Advanced Disposal Services Zion Landfill, Inc. 701 Green Bay Rd. Zion, IL 60099	c. Phone Number: (847) 599-5921 d. Mailing Address SAME
. Discrepancy Indication	on Space:	
hereby coefficient that the a	above named material has been accepted and to the best of	f my knowledge the foregoing is true and accurate.

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Designated Facility	ZION LANDFILL		Internal No. 008
Section (GENERATOR		35 Cy
a. Generator Name;		h Generatine Leastin	400 5
c. Address:	77 West Jackson Blvd.	d. Address:	n: 100 East Sea Horse Dr
	Mail Code: SR-6J Chicago, Il 60604	d. Address.	- Waukegan II 60085
e. Phone No.:	312-886-6551	f. Phone Number:	242 000 0004
If the owner of	the generating facility differs from the generator, provide:	i. Frione Number:	312-886-6551
g. Owners Reps Nam	ne: Sarah Roffes	K Quantity- Ld 1	Units
h. Owners Phone No.	.: 312-886-6551	re equalitity to 1	Ld 5
i. Waste Profile No.		Quantily- Ld 2	Ld 6
	#006527	Quantity- Ld 3	Ld 7
j. Description of Wast	re; C-Debris (Concrete)	Quantity- Ld 4	Ld 8 Units - y = yard o = other
To to dity applica	FUS FPA Region 5 PUMChanges	iod and sadu	at the state of th
Section II	TRANSPORTER		
a. Transporter Name:	Kirschhoffer Truck Service, Inc		NOTES / COMMENTS
b. Address:	43185 N. Hwy 41	One Ford down	T 1.
c. Driver Name / Title: d. Phone: a Truck Number i. Vehicle License No. /	Zion, II 60099 State: IL	She End dump) Truck Apprax. 22 cyds
Acknowledgement of R	eceipt of Materials		
Drivers Signature	08/18/2020 Shipment Date	-	
section III . Site Name; . Physical Address:	DESTINATION Advanced Disposal Services Zion Landfill, Inc. 701 Green Bay Rd. Zion, IL 60099	_c. Phone Number: _d. Mailing Address	(847) 599-5921 SAME
. Discrepancy Indicatio	on Space:		
hereby certify that the a	above named material has been accepted and to the best of	Try knowledge the forecoin	no is true and accurate
ame of Authorized Age	poel p	1	\$118125
_	_		Keceipt Date





Designated Facility	ZION LANDFILL		Internal No. 016
Section I	GENERATOR		1
a. Generator Name;	US EPA Region 5	h C	
c. Address:	77 West Jackson Blvd.		on: 100 East Sea Horse Dr
	Mail Code: SR-5J Chicago, Il 60604	d. Address:	Waukecan II 60085
e. Phone No.:	312-886-6551	6 Phone No. 1	
If the owner of	the generating facility differs from the generator, provide:	f. Phone Number:	312-886-6551
g. Owners Reps Nan	ne: Sarah Roffes	K. Quantity- Ld 1	Units
h. Owners Phone No	312-886-6551	K. Quantity- Ld 1	Ld5
i. Waste Profile No.	:	Quantity- Ld 2	Ld 6
	#006527	Quantity- Ld 3	Ld 7
j. Description of Was		Quantity- Ld 4	Ld 8
proper condition for	at the above named material is not hazardous wasterable state law, has been properly described, classifier transportation according to applicable regulations or listed on line i.	ad and poolsoost	nd is in matches
Generator Authorized	Agent Name Signature		08/18/2020 Shipmort Data
Section II	TRANSPORTER		Shipment Date
a. Transporter Name:	Kirschhoffer Truck Service, Inc	1	NOTES / COMMENTS
b. Address:	43185 N. Hwy 41	-{	2.5.00
	Zion, II 60099	One End dum	p Truck Approx. 22 cyds
c. Driver Name / Title;	Bill Telt-2 847-395-6202		
e Truck Number	270	-	
f. Vehicle License No.	State: IL P 815 360		
Acknowledgement of R	eceipt of Materials	7	
Drivers Signature	08/18/2020 Shipment Date		
Section III	DESTINATION	I	
n. Site Name; p. Physical Address:	Advanced Disposal Services Zion Landfill, Inc. 701 Green Bay Rd. Zion, IL 60099	c. Phone Number: d. Mailing Address	(847) 599-5921 SAME
Discrepancy Indication	on Space:	<u> </u>	
hereby certify that the	above named material has been accepted and to the best of r	ny kinowledge the formati	ing in the panel and a second
= 5	hoel 1	Auranda Ina totadol	FILLO
ame of Authorized Age	ent Signature	/	Receipt Date

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Designated Facility	ZION LANDFILL		Internal No. 09/ 162
Section I	GENERATOR		
a. Generator Name:	US EPA Region 5	h Comercia a Las es	
c. Address:	77 West Jackson Blyd.		on: 100 East Sea Horse Dr
	Mail Code: SR-5J Chicago, Il 60604	d. Address:	Waukegan II 60085
e. Phone No.;			
	312-886-6551 The generating facility differs from the generator, provide:	f. Phone Number:	312-886-6551
g. Owners Reps Nar	ne: Sarah Rolfes	K Out to	Units
h. Owners Phone No		K. Quantity- Ld 1	Ld 5
i. Waste Profile No.	.:	Quantity- Ld 2	Ld 6
	#006527	Quantity- Ld 3	Ld 7
j. Description of Was		Quantity- Ld 4	Ld 8 Units - y = yard o = other
proper condition fi the profile numb	at the above named material is not hazardous was able state law, has been properly described, classif or transportation according to applicable regulation er listed on line i. St U.S. EPA Region 5 Agent Name Signature	field and nockeeped a-	
Section II	TRANSPORTER		
a. Transporter Name:	Kirschhoffer Truck Service, Inc		NOTES / COMMENTS
b. Address:	43185 N. Hwy 41	7	
	Zion, Il 60099	One End dum	p Truck Approx. 22 cyds
c. Driver Name / Title:	Chris Fritzen Doiser	-	
d. Phone:	847-395-6202	-	
Truck Number	393	-	
. Vehicle License No.	/State: IL P97/00/	-	
Acknowledgement of F		-	
11			
	08/18/2020		
Hvers Signature	Shipment Date	-	
ection III . Site Name: . Physical Address:	DESTINATION Advanced Disposal Services Zion Landfill, Inc. 701 Green Bay Rd.	_c. Phone Number: _d. Mailing Address	(847) 599-5921 SAME
. Discrepancy Indication	Zion, IL 60099	-	
Toy contry that the	above named material has been accepted and to the best of	my knowledge the foregoi	ing is true and accurate.
ame of Authorized Ag	ent Signature	lis	8/18/2
	Organization of the Control of the C	and the same of th	Receipt Date



Designated Facility	ZION LANDFILL	Internal No. 008 7
Section t	GENERATOR	
a. Generator Name.		
c. Address:	77 West Jackson Blvd.	b.Generating Location: 100 East Sea Horse Dr
	Mail Code: SR-6J	d. Address: Waukegan_II 60085
e. Phone No.:	Chicago, Il 60604 312-886-6551	
	the generating facility differs from the generator, provide:	f. Phone Number: 312-886-6551
g. Owners Reps Nar	ne:Sarah Rolfes	Units
h. Owners Phone No		K. Quantity- Ld 1 Ld 5
	472 500 0001	
i. Waste Profile No.		Quantity- Ld 2 Ld 6
· Waste Liowe Mo	#006527	Ouantile Ld 2
		Quantity- Ld 3 Ld 7
j. Description of Was	te:C-Debris (Concrete)	Quantity- Ld 4
GENERATORS O	CERTIFICATION:	Units - y = yard o = other
I hereby certify the	at the above named material is not hazardous west	o an defend to some o
and an arrive application	AND SIGIE IGW. HIS DEEN DINNENV ASSENDED ALSO IS	indiametrical transfer
Propor condition is	or registrolization according to applicable manistics.	s; And, the material matches
and bronne months	er listed on line I.	
Fred Williams	Davies	
CH2M-Hill on behalf of Generator Authorized	Annat Na	08/16/2020
CONORDO AUGIONZE	Agent Name Signature	Shipment Date
Section II	TRANSPORTER	
a. Transporter Name:	Kirschhoffer Truck Service, Inc	NOTES / COMMENTS
b. Address:	43185 N. Hwy 41	
		One End dump Truck Approx. 22 cyds
	Zion, II 60099	_
c. Driver Name / Title:	Chris Program Driver	
d Phone:	847-395-6202	
a Truck Number	393	7
. Vehicle License No.	/ State: IL <i>P971001</i>	1
Acknowledgement of F		7
1/		
of afri-	08/18/2020	
Privers Signature	Shipment Date	-
Section III		
. Site Name:	DESTINATION Advanced Disposal Services Zion Landfill, Inc.	
. Physical Address:	701 Green Bay Rd.	c. Phone Number: (847) 599-5921 d. Mailing Address SAMF
	Zion, IL 60099	SAME
. Discrepancy Indication	on Space:	
hereby certify that the	above named material has been accepted and to the best of r	my knowledge the formation in the
71		7
	heel &	81141W
ame of Authorized Age	ent Signature	Receipt Date

95617



Designated Facility	ZION LANDFILL		Internal No. 00620
Section I	GENERATOR		<u> </u>
a. Generator Name:	US EPA Region 5	h Conomina Landing	400 5 4 5 44
c. Address:	77 West Jackson Blvd. Mail Code: SR-6J Chicago, Il 60604	b.Generating Location: _ d. Address: _	Waukegan II 60085
e. Phone No.:	312-886-6551	f. Phone Number:	0/2 222
If the owner of	the generating facility differs from the generator, provide:	i. Frione Number.	312-886-6551
g. Owners Reps Nar	ne: Sarah Rolles	K Overtite	Units
h. Owners Phone No		K. Quantity- Ld 1	Ld 5
i. Wasle Profile No.	#006527	Quantity- Ld 2	Ld 6
j. Description of Was	te:C-Debris (Concrets)	Quantity- Ld 4	Ld 8
proper condition for	at the above named material is not hazardous wastable state law, has been properly described, classified transportation according to applicable regulations or listed on line i. Set U.S. EPA Region 5 Agent Name Agent Name	ad and seedees at the see	
Section II	TRANSPORTER		
a. Transporter Name:	Kirschhoffer Truck Service, Inc	NO.	OTES / COMMENTS
b Address;	43185 N. Hwy 41	7	
c. Driver Name / Title: d. Phone: e Truck Number	Zion, 11 60099 Chris grasch Driva 847-395-6202 393	One End dump Tr	uck Approx. 22 cyds
f. Vehicle License No.	State: IL PADIO		
Acknowledgement of F			
Section III I. Sile Name: D. Physical Address:	DESTINATION Advanced Disposal Services Zion Landfill, Inc. 701 Green Bay Rd. Zion, IL 60099	c. Phone Number: d. Mailing Address	(847) 599-5921 SAME
. Discrepancy Indication			
hereby certify that the ame of Authorized Age	above named material has been accepted and to the best of a	ny knowledge the foregoing i	Strue and accurate. \$\int 1/3120 Receipt Date

95617



Designated Facility	ZION LANDFILL		Internal No.
Section I	GENERATOR		<u> </u>
a. Generator Name:			
c. Address;	77 West Jackson Blvd.		n: 100 East Sea Horse Dr
	Mall Code: SR-6J	d. Address:	Waukegan II 60085
e. Phone No.:	Chicago, II 60604		
	<u>312-886-6551</u>	f. Phone Number:	312-886-6551
g. Owners Reps Nan	the generating facility differs from the generator, provide:		Units
h. Owners Phone No		K Quantity- Ld 1	Ld 5
Owners Lipite Mo	.: 312-886-6551		
		Quantity- Ld 2	Ld 6
i. Waste Profile No.	#006527		
	#000527	Quantity- Ld 3	Ld 7
j. Description of Wasi	e: C-Debris (Concrete)	0	
		Quantity- Ld 4	Ld 8
GENERATORS C	ERTIFICATION:		Units - y = yard o = other
261 or any applica	at the above named material is not hazardous wastable state law, has been properly described, classifications are stated to the contraction of the	e as defined by 40CF	R Part
proper condition for	or transportation according to applicable regulations	led and packaged, an	d is in
the profile number	er listed on line i.	s; And, the material	matches
Fred Williams			
CH2M-Hill on behalf o	f U.S. EPA Region 5 Pluklians		00/46/2000
Generalor Authorized	Agent Name Signature		08/16/2020 Shipment Date
Section II	TRANSPORTER		Onlyment Date
a. Transporter Name:	Kirschhoffer Truck Service, Inc	1	NOTES / COMMENTS
b. Address:	43185 N. Hwy 41	-	- SOMMENTO
D. Addiess,		One End dum	Truck Approx. 22 cyds
	Zlon, II 60099		7,700
Driver Name / Title:	Chro Fulsot Down		
d. Phone:	847-395-6202	7	
Truck Number	34 3	1	
. Vehicle License No. /	State: IL		
Acknowledgement of R	eceipt of Malerials	-	
1	08/48/2020		
Privers Signature	08/18/2020 Shipment Date	-	
redice III			
ection III . Site Name:	DESTINATION Advanced Disposal Services Zion Landfill, Inc.		
Physical Address:	701 Green Bay Rd.	_c. Phone Number: _d. Mailing Address	(847) 599-5921
	Zion, IL 60099	_d. Mailing Address	SAME
Discrepancy Indication	n Space:		
nereby certify that the	Book named material has been seen swoods		
	above named material has been accepted and to the best of r	my knowledge the foregoid	ng is true and accurate.
- Telly Cen	mungham Helly Cumunah	ane)	
ame of Authorized Age	ont Signature		Receipt Date

95617



Designated Facility	ZION LANDFILL		Internal No. 009
Section t	GENERATOR		<u> </u>
a. Generator Name:	US EPA Region 5	b.Generating Local	lion: 100 East Sea Horse Dr
c. Address:	77 West Jackson Blvd.	d. Address:	
	Mail Code: SR-6J Chlcago, Il 60604	u. Address.	Waukegan, II 60085
e. Phone No.:	312-886-6551	f. Phone Number:	040,000,000
If the owner of	the generating facility differs from the generator, provide:	r. r none Number.	312-886-6551
g. Owners Reps Nam	e:Sarah Rolfes	K. Quantity- Ld	Units
h. Owners Phone No.	312-886-6551	ic desinity-	, rq 2 [] [
		Quantity- Ld 2	Ld 6
i. Waste Profile No.	1		
	#006527	Quantity- Ld 3	Ld 7
j. Description of Wast	e: C-Debris (Concrete)	Quantity- Ld 4	
GENERATORS C	EDTIEICATION.	Quantity- Ld 4	Units - y = yard o = other
I hereby certify that	it the above named material is not hazardous woo	to on doffeed by 400	
are a dr arry applica	inic state law, flas userii ()(()peny neconhad iclosei:	fied and modern I -	- 11 1
brober coughfull if	n dispolication accompling to applicable requisition	is: And, the materia	inos m i matches
- Proffic Haffing	er listed on line i.	, , , , , , , , , , , , , , , , , , , ,	
Fred Williams	000,00		
CH2M-Hill on behalf of Generator Authorized	A t Nt		08/18/2020
	Agent Name Signature		Shipment Date
Section II	TRANSPORTER		
a. Transporter Name:	Kirschhoffer Truck Service, Inc		NOTES / COMMENTS
b. Address:	43185 N. Hwy 41	7	
	Zion, II 60099	One End dur	Truck Approx. 22 cyds
c. Driver Name / Title:	Chris Fortsche Dower	7	
d. Phone:	847-395-6202		
a Truck Number	393		
. Vehicle License No. /	State:	7	
Acknowledgement of R	eceipt of Materials	7	
12.11	/		
16	08/18/2020		
Drivers Signature	Shipment Date	1	
Section III	DESTINATION		
. Site Name:	Advanced Disposal Services Zion Landfill, Inc.	c. Phone Number:	(847) 500 500
. Physical Address:	701 Green Bay Rd. Zion, IL 60098	d. Mailing Address	(847) 599-5921 SAME
. Discrepancy Indicatio		-	
	above named material has been accepted and to the best of		
	and the descon	my knowledge the foreg	oing is true and accurate.
/ !	- Marie		Glinia
ame of Authorized Age	nt Signature	and the same of th	_011016

45617



Designated Facility	ZION LANDFILL		Internal No. OMCICI
Section 1	GENERATOR		7:210
a. Generator Name:	US EPA Region 5	h Canandina I	
c. Address;	77 West Jackson Blvd.		lion: 100 East Sea Horse Dr
	Mail Code: SR-83 Chicago, (I 60604	d. Address:	Waukegan II 60085
e. Phone No.;	312-886-6551	6 Dhana Na	
if the owner of	the generating facility differs from the generator, provide:	f. Phone Number:	312-886/6551
g. Owners Reps Nar	ne:Samh Rolfes	K Ougatite 1.4	Units
h. Owners Phone No		K. Quantity- Ld	1 Ld 5
i. Wasle Profile No.	:	Quantity- Ld 2	2 Ld 6
	#006527	Quantity- Ld 3	Ld 7
j. Description of Was	te: C-Debris (Concrete)	Quantity- Ld 4	Ld8
proper condition for the profile numb Fred Williams	at the above named material is not hazardous was able state law, has been properly described, classif or transportation according to applicable regulation er listed on line I.	te as defined by 400	Units - y = yard o = other
Generator Authorized	Agent Name Signature		08/18/2020
Section It			Shipment Date
a. Transporter Name:	TRANSPORTER	1	NOTES (COMMENTS)
b. Address:	Kirschhoffer Truck Service, Inc 43185 N. Hwy 41	_	NOTES / COMMENTS
o. Addiess.		One End dur	np Truck Approx. 22 cyds
a Debarable - (To	Zion, II 60099	_	•
c. Driver Name / Title:	647-395-6202	_	
d. Phone:	047-393-6202	_	
e Truck Number		4	
. Vehicle License No.		1	
Acknowledgement of F	OB/18/2020		
Drivers Signature	Shipment Date	-{	
Section III	DESTINATION		
. Site Name:	Advanced Disposal Services Zion Landfill, Inc.	c. Phone Number:	(847) 500 5004
. Physical Address:	701 Green Bay Rd. Zion, IL 60099	_d. Mailing Address	(847) 599-5921 SAME
. Discrepancy Indication		<u> </u>	
hereby certify that the	above named material has been accepted and to the best of	Try knowledge the foreout	DING is this and accurate
41	book &	11	
arke of Authorized Age	ent Signey-	- franchischer	/////
(Age	ent Signatúre	S	Receipt Date

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

SITE CELL TICKET # **OPERATOR** 1246937 ΖL ZLILJEGREN TRUCK CONTAINER LICENSE 272_KTSI REFERENCE IN OUT B/18/20 7:32 am 164 8/18/20 7:46 am

INVOICE INBOUND

BOL:		GROSS TARE NET	71,800.00 LE 39,120.00 LE 32,680.00 LE	SS Scale Out		
QTY UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
16.34 TN 1.00	C-Debrisnex External COMPLIANCE AND BUSINESS IMPACT CHARG	LC	100.00			

Thank you for your business!!

I hereby certify that this load does not contain any unauthorized hazardous waste.

Energy Charge

Environmental Charge

Tax Total Total

Paid

Change Check#

Recpt #

FACILITY COPY

CYCMATIDE.

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

								
SITE	CELL	TICKET #		OPERATOR				
ZL		1246954		ZLILJEGREN				
	TRUCK 272_KTSI		CONTAINER		NSE			
	R	EFERENCE	.	IN	OUT			
10				8/18/20 8:53 am	8/18/20 8:53 am			

INVOICE INBOUND

BOL:		GROSS TARE NET		LBS Scale In LBS Tare Out LBS		
QTY UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
17.13 TN	C-Debrisnex External COMPLIANCE AND BUSINESS IMPACT CHARG	LC	100.00			

Thank you for your business!!

Energy Charge

Environmental Charge

Total

Tax Total

Paid

Change Check#

Recpt #

FACILITY COPY

SIGNATURE:

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

SITE	CELL TICKET #			OPERATOR			
ZL		1246992		ZLILJEGR	REN		
	FRUCK	CONTAINE	CONTAINER		NSE		
2	72_KTSI						
	R	EFERENCE		IN	OUT		
28				8/18/20 10:41 am	8/18/20 10:41 am		

INVOICE INBOUND

			_				20.12
CONTRACT; NO	06527		GROSS TARE NET	69,060.00 L 39,120.00 L 29,940.00 L	BS Tare Out		
QTY	UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
14.97	TN	C-Debrisnex External COMPLIANCE AND BUSINESS IMPACT CHARG	ľ.C	100.00			
ank you for your	business	11	-		Tax Total	Total	

Energy Charge

Environmental Charge

Paid

Change Check#

Recpt #

FACILITY COPY

SIGNATURE:

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

SITE	CELL	Т	ICKET #	# OPERATOR			
ZL		1	247025		ZLILJEGREN		
	TRUCK CC			IER	R LICENSE		
2	72_KTSI						
		REFER	ENCE		IN	OUT	
36					8/18/20 11:58 am	8/18/20 11:58 am	

INVOICE INBOUND

			_				11.30
CONTRACT; BOL:	N006527		GROSS TARE NET		.8S Scale In .8S Tare Out .8S		
QTY	UNIT	DESCRIPTION	ORIGIN	%	RATE [TAX	TOTAL
16.11	TN	C-Debrisnex External COMPLIANCE AND BUSINESS IMPACT CHARG	rc	100.00 0.00			
				1			

Thank you for your business!!

Energy Charge

Environmental Charge

Total

Tax Total

Paid

Change Check#

Recpt #

FACILITY COPY

SIGNATURE:____

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

SITE	CELL	ī	TCKET #		OPERATOR			
ZL		1	247047		ZLILJEGREN			
-	TRUCK CONTAINER			VER	LICENSE			
2	72_KTSI							
		REFERI	ENCE		IN	OUT		
42					8/18/20 1:12 pm	8/18/20 1:12 pm		

INVOICE INBOUND

BOL:			TARE NET		LBS Scale In LBS Tare Out LBS		
QTY	UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
17.04	TN	C-Debrisnex External COMPLIANCE AND BUSINESS IMPACT CHARG	LC	0.00			

Thank you for your business!!

Energy Charge

Environmental Charge

Total

Tax Total

Paid

Change Check#

Recpt #

FACILITY COPY

SIGNATURE:

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

SIGNATURE:

SITE CELL TICKET # **OPERATOR** ZL 1246929 ZLILJEGREN TRUCK CONTAINER LICENSE 393_CLF REFERENCE IN OUT 8/18/20 162 8/18/20 7:16 am 7:16 am

INVOICE INBOUND

QTY UNIT DESCRIPTION 23.95 TN C-Debrisnex External 1.00 COMPLIANCE AND BUSINESS IMPACT CHARG	NET ORIGIN LC	47,900.00 L	RATE	TAX	
The second second	LC			177/	TOTAL
SOM ELLINGE AND DOSINESS INFACT CHARG		100.00			

I hereby certify that this load does not contain any unauthorized hazardous waste.

Energy Charge

Environmental Charge

Paid

Change Check#

Recpt #

FACILITY COPY

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

				\top					
SITE	CELL	7	TICKET #		OPERATOR				
ZL		1	.246947		ZLILJEGREN				
1	TRUCK		CONTAINER		LICENSE				
3	93_CLF								
		REFER	ENCE		IN	ОИТ			
2					8/18/20 8:36 am	8/18/20 8:36 am			

INVOICE INBOUND

ONTRACT: N	006527		GROSS TARE NET		LBS Scale In LBS Tare Out LBS	-	
QTY	UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
23.45	TN	C-Debrisnex External COMPLIANCE AND BUSINESS IMPACT CHARG	LC	100.00			

Thank you for your business!!

Energy Charge

Environmental Charge

Tax Total Total

Paid

Paid Change

Check#

Recpt #

FACILITY COPY

SIGNATURE:_____

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

SITE	CELL TICKET #			OPERATOR		
ZL		1246981		ZLILJEGREN		
7	RUCK	CONTAINE	R	LICENSE		
3	93_CLF					
		REFERENCE		IN	OUT	
20				8/18/20 9:50 am	8/18/20 9:50 am	

INVOICE INBOUND

BOL:	N006527 		GROSS TARE NET		LBS Scale In LBS Tare Out LBS		
QTY	UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
22.06 1.00	TN	C-Debrisnex External COMPLIANCE AND BUSINESS IMPACT CHARG	IC	100.00			

Thank you for your business!!

Energy Charge

Environmental Charge

Total

Tax Total

Paid

Change Check#

Recpt #

FACILITY COPY

SIGNATURE:____

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

CELL SITE TICKET # **OPERATOR** ZL 1246999 ZLILJEGREN TRUCK CONTAINER LICENSE 393_CLF REFERENCE IN OUT 8/18/20 8/18/20 11:10 am 11:10 am 28

INVOICE INBOUND

			_				11.10 dill
CONTRACT: N	1006527		GROSS TARE NET		BS Scale In BS Tare Out BS	100	
QTY	UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
22.75	TN	C-Debrisnex External COMPLIANCE AND BUSINESS IMPACT CHARG	ic	100.00			

Thank you for your business!!

Energy Charge

Environmental Charge

Total

Pald

Tax Total

Change Check#

Recpt #

SIGNATURE:

I hereby certify that this load does not contain any unauthorized hazardous waste.

FACILITY COPY

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

SITE	CELL	TIC	KET#		OPERATO	DR.
ZL		124	17030		ZLILJEGR	EN
	FRUCK 93_CLF	7	CONTAIN	ER	LICE	NSE
	F	REFEREN	CE		IN	OUT
38					8/18/20 12:31 pm	8/18/20 12:31 pm

INVOICE INBOUND

BOL:			GROSS TARE NET	76,860.00 L 27,280.00 L 49,580.00 L	BS Tare Out		
QTY	UNIT.	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
24.79 1.00	TN	C-Debrisnex External COMPLIANCE AND BUSINESS IMPACT CHARG	LC	100.00			
nk you for yo	our business		ergy Charge		Tax Total	Total	

I hereby certify that this load does not contain any unauthorized hazardous waste.

Environmental Charge

Pald Change Check#

Recpt #

SIGNATURE:

FACILITY COPY

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

INVOICE INBOUND

		_		Т		
SITE	CELL	ī	ICKET #		OPERATO	DR
ZL		1	247058		ZLILJEGR	 EN
-	TRUCK		CONTAIN	ER	LICE	NSE
3	93_CLF					
		REFER	ENCE		IN	OUT
44					8/18/20 1:49 pm	8/18/20 1:49 pm

CONTRACT: NO BOL:	06527		GROSS TARE NET		.BS Scale In .BS Tare Out .BS		
QTY	UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
14.61	TN	C-Debrisnex External COMPLIANCE AND BUSINESS IMPACT CHARG	LC	0.00			

Thank you for your business!!

Energy Charge

Environmental Charge

Total

Tax Total

Paid Change

Check#

Recpt #

FACILITY COPY

SIGNATURE:____

Customer By Contract_GroupedVehicle

Customer	TicketDate	Ticket #	Contract	Material	Reference	Disposal Qty
				306_JV		
95617	10/7/20	1254028	N006533	C-Soilnex - External	96	24.03
						24.03
	200		1 1 1 1 1 1	388_ZIZZOS		
95617	10/7/20	1253965	N006533	C-Soilnex - External	80	25.56
95617	10/7/20	1253982	N006533	C-Soilnex - External	80	24.97
95617	10/7/20	1254009	N006533	C-Soilnex - External	80	24.49
95617	10/7/20	1254035	N006533	C-Soilnex - External	80	20.28
						95.30
3	- 111-11	10-5		635_ZIZZOS		
95617	10/7/20	1253963	N006533	C-Sollnex - External	78	24.90
95617	10/7/20	1253979	N006533	C-Soilnex - External	78	25.86
95617	10/7/20	1254007	N006533	C-Soilnex - External	78	25.58
95617	10/7/20	1254031	N006533	C-Sollnex - External	78	23.91
						100.25
E. Ta				679_ZIZZOS	18 20	
95617	10/7/20	1253967	N006533	C-Soilnex - External	82	31.38
95617	10/7/20	1253985	N006533	C-Solinex - External	82	19.39
5617	10/7/20	1254011	N006533	C-Soilnex - External	82	25.27
95617 ————	10/7/20	1254039	N006533	C-Soilnex - External	82	12.44
						88.48
-10	The B			795_ZIZZOS		2721
5617	10/7/20	1253970	N006533	C-Sollnex - External	84	24.36
5617	10/7/20	1253993	N006533	C-Soilnex - External	84	24.90
5617	10/7/20	1254014	N006533	C-Soilnex - External	84	24.74
						74.00

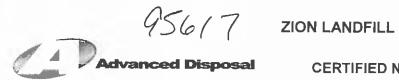
Customer	TicketDate	Ticket #	Contract	Material	Reference	Disposal Qty	
			2 70 10 100	796_ZIZZOS			-
95617	10/7/20	1253959	N006533	C-Sollnex - External	76	27.00	
95617	10/7/20	1253975	N006533	C-Soilnex - External	76	27.08 23.58	
95617	10/7/20	1253998	N006533	C-Sollnex - External	76	23.84	
95617	10/7/20	1254021	N006533	C-Soilnex - External	76	26.84	
						101.34	

	Total	
Total		483.40

483.40

N006533

483.40



28550

Designated Facility	ZION LANDFILL	_	Internal No.100 Noice
Section I	GENÉRATOR		
a. Generator Name: c. Address:	US EPA Region 5 77 West Jackson Blvd. Mail Code : SR-6J	b.Generating Location d. Address:	100 East Sea Horse Dr.
J. 7 (43) 230.	Chicago, IL 60604	u. Address.	Waukegan, IL 60085
e. Phone No.:	312-886-6551	f. Phone Number:	312-886-6551
If the owner of th	ne generating facility differs from the generator, provide:		
	Sarah Rolfes	K Quantity- Ld 1	Ld 5
h. Owners Phone No.:	312-886-6551		
		Quantity- Ld 2	Ld 6
i Waste Profile No. ;	#006533	Quantity- Ld 3	Ld 7
. Description of Waste	C-Soil	Quantity- Ld 4	Ld 8
GENERATORS CE		-1-5151005	Units - y = yard o = other
nereby certify that	t the above named material is not hazardous wa	iste as defined by 40CF	R Part
zo i or any applicat	ble state law, has been properly described, class	sified and packaged, an	id is in
	r transportation according to applicable regulation	ins; And, the material	matches
the profile numbe		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
BENITO COSTI		1) 1 1
BEHAIF OF Generator Authorized A	USEPA REGIONS Signature	5 6	Shipment Date
Section II	TRANSPORTER	,	
a. Transporter Name:	Kirschhoffer Truck Service, Inc		NOTES / COMMENTS
o. Address:	43185 N. Hwy 41		
	Zion, IL 60099		
c. Driver Name / Title:	Say D/Ima		
d. Phone:	847-395-9202		
e. Truck Number:	306		
Vehicle License No. /	State:IL		
Acknowledgement of R	eceipt of Materials		
i Driveys Skorlajure	10-7-202 Shipment Dale		
Section III	DESTINATION	1	
Sile Name:	Advanced Disposal Services Zion Landfill, Inc.	c. Phone Number.	(847) 599-5921
o. Physical Address:	701 Green Bay Rd. Zion, IL 60099	d. Mailing Address	SAME
. Discrepancy Indication	on Space:		
hereby certify that the	above named material has been accepted and to the best	of my knowledge the forego	oing is true and accurate.
Ω \subset		. /	
17.	J Sheh	win	10-7-2
larke of Authorized Age	ent Signature		Receipt Date

95617

ZION LANDFILL



X

Designated Facility			
Section 1	GENERATOR		
. Generator Name:	US EPA Region 5	b.Generating Location	n: Same
: Address:	77 West Jackson Blvd. Mail Code : SR-6J	d. Address:	100 East Sea Horse Dr.
	Chicago, IL 60604	u. / (ddi 005.	Waukegan, IL 60085
. Phone No.:	312-886-6551	f. Phone Number.	312-886-6551
	generating facility differs from the generator, provide:	T. THOROTTORIDGE.	Uı
	Sarah Rolfes	K. Quantity- Ld 1	Ld 5
	312-886-6551	re duality to 1	
	312-303-3381	Quantity- Ld 2	Ld 6
i Minto Broßlo No.			
i. Waste Profile No. :	#006533	Quantity- Ld 3	Ld 7
Description of Waste: _	C-Soil	Quantity- Ld 4	Ld 8 Units - y = yard o = other
BEHAIF OF USE			16/01/2020
BEHAIF OF USA enerator Authorized Ag ection II			Shipment Date
enerator Authorized Ag	ent Name Signature		NOTES / COMMENTS
enerator Authorized Ag ection II Transporter Name:	ent Name Signature TRANSPORTER		
enerator Authorized Ag	TRANSPORTER Kirschhoffer Truck Service, Inc 43185 N. Hwy 41	1 END 0	NOTES / COMMENTS VIMP' APPROX. 204
ection II Transporter Name: Address:	ent Name Signature TRANSPORTER Kirschhoffer Truck Service, Inc	1 END 0	
ection II Transporter Name: Address: Driver Name / Title.	TRANSPORTER Kirschhoffer Truck Service, Inc 43185 N. Hwy 41	1 END D	
ection II Transporter Name: Address: Driver Name / Title.	TRANSPORTER Kirschhoffer Truck Service, Inc 43185 N. Hwy 41 Zion, IL 60099	1 END 0	
ection II Transporter Name: Address: Driver Name / Title. Phone:	TRANSPORTER Kirschhoffer Truck Service, Inc 43185 N. Hwy 41 Zion, IL 60099 Atronomic Market Mark	\ END D	-
ection II Transporter Name: Address: Driver Name / Title. Phone: Truck Number:	TRANSPORTER Kirschhoffer Truck Service, Inc 43185 N. Hwy 41 Zion, IL 60099 Aich Winfie H 847-395-6202	1 END D	
ection II Transporter Name: Address: Driver Name / Title. Phone: Truck Number: Vehicle License No. / S	TRANSPORTER Kirschhoffer Truck Service, Inc 43185 N. Hwy 41 Zion, IL 60099 Kich Winste H 847-395-6202 388 Itale: IL zeipt of Materials	\ END D	
ection II Transporter Name: Address: Driver Name / Title. Phone: Truck Number: Vehicle License No. / Scknowledgement of Rec	TRANSPORTER Kirschhoffer Truck Service, Inc 43185 N. Hwy 41 Zion, IL 60099 Kick Winnie H 847-395-6202 388 Itate: IL teipt of Materials	/ END 0	-
ection II Transporter Name: Address: Driver Name / Title. Phone: Truck Number: Vehicle License No. / Secknowledgement of Rec	TRANSPORTER Kirschhoffer Truck Service, Inc 43185 N. Hwy 41 Zion, IL 60099 Kich Winste H 847-395-6202 388 Itale: IL zeipt of Materials	/ END 0	
ection II Transporter Name: Address: Driver Name / Title. Phone: Truck Number: Vehicle License No. / Scknowledgement of Recurivers Signature	TRANSPORTER Kirschhoffer Truck Service, Inc 43185 N. Hwy 41 Zion, IL 60099 Kich Winste H 847-395-6202 388 Itale: IL zeipt of Materials DESTINATION		VMP; APPREX. 204
ection II Transporter Name: Address: Driver Name / Title. Phone: Truck Number: Vehicle License No. / Scknowledgement of Recurivers Signature ection III Site Name:	TRANSPORTER Kirschhoffer Truck Service, Inc 43185 N. Hwy 41 Zion, IL 60099 Kich Winste H 847-395-6202 388 Itale: IL ceipt of Materials DESTINATION Advanced Disposal Services Zion Landfill, Inc.	c. Phone Number.	UMP; Дррисх. 20Y
ection II Transporter Name: Address: Driver Name / Title. Phone: Truck Number: Vehicle License No. / Scknowledgement of Recurivers Signature ection III Site Name: Physical Address:	TRANSPORTER Kirschhoffer Truck Service, Inc 43185 N. Hwy 41 Zion, IL 60099 Kich Winste H 847-395-6202 388 Itale: IL zeipt of Materials DESTINATION		VMP; APPREX. 204
ection II Transporter Name: Address: Driver Name / Title. Phone: Truck Number: Vehicle License No. / Scknowledgement of Recurivers Signature ection III Site Name: Physical Address:	TRANSPORTER Kirschhoffer Truck Service, Inc 43185 N. Hwy 41 Zion, IL 60099 Licu Winnie H 847-395-6202 388 IL ceipt of Materials DESTINATION Advanced Disposal Services Zion Landfill, Inc. 701 Green Bay Rd. Zion, IL 60099	c. Phone Number.	UMP; Дррасх. 20Y
ection II Transporter Name: Address: Driver Name / Title. Phone: Truck Number: Vehicle License No. / Scknowledgement of Recurivers Signature ection III Site Name: Physical Address: Discrepancy Indication	TRANSPORTER Kirschhoffer Truck Service, Inc 43185 N. Hwy 41 Zion, IL 60099 Lich Winste H 847-395-6202 388 Itale: IL seipt of Materials DESTINATION Advanced Disposal Services Zion Landfill, Inc. 701 Green Bay Rd. Zion, IL 60099 Space:	c. Phone Number:	UMP; Дрргсх. 204
ection II Transporter Name: Address: Driver Name / Title. Phone: Truck Number: Vehicle License No. / Scknowledgement of Recurivers Signature ection III Site Name: Physical Address: Discrepancy Indication	TRANSPORTER Kirschhoffer Truck Service, Inc 43185 N. Hwy 41 Zion, IL 60099 Licu Winnie H 847-395-6202 388 IL ceipt of Materials DESTINATION Advanced Disposal Services Zion Landfill, Inc. 701 Green Bay Rd. Zion, IL 60099	c. Phone Number:	UMP; Дрргсх. 204
ection II Transporter Name: Address: Driver Name / Title. Phone: Truck Number: Vehicle License No. / Scknowledgement of Recurivers Signature ection III Site Name: Physical Address: Discrepancy Indication	TRANSPORTER Kirschhoffer Truck Service, Inc 43185 N. Hwy 41 Zion, IL 60099 Lich Winste H 847-395-6202 388 Itale: IL seipt of Materials DESTINATION Advanced Disposal Services Zion Landfill, Inc. 701 Green Bay Rd. Zion, IL 60099 Space:	c. Phone Number:	UMP; Дрргсх. 204

45617 UN-86,000 New-28,980

ZION LANDFILL



Designated Facility	ZIÓN LANDFILL		Internal No 10072020 7
Section I	GENERATOR		
a. Generator Name:	US EPA Region 5 77 West Jackson Blvd.	b.Generating Locatron	n: Same
c. Address:	Mail Code : SR-6J	d Address:	100 East Sea Horse Dr.
	Chicago, IL 60604		Waukegan, IL 60085
e. Phone No :	312-886-6551	f. Phone Number.	312-886-6551
If the owner of the	generating facility differs from the generator, provide.		Units
g. Owners Reps Name:	Sarah Rolfes	K. Quantity- Ld 1	Ld 5
h Owners Phone No	312-886-6551	Quantity- Ld 2	Ld 6
i. Waste Profile No :	#006533	Quantity- Ld 3	Ld 7
j. Description of Waste:	C-Soil	Quantity- Ld 4	Ld 8 Units - y = yard o = other
proper condition for the profile number Report CASTILL ON BEMAIN OF I Generator Authorized Ag	gent Name Signature		
Section II	TRANSPORTER		NOTES / COMMENTS
a. Transporter Name:	Kirschhoffer Truck Service, Inc	_	TO TEO TO ONIMICATIO
b. Address:	43185 N. Hwy 41 Zion, IL 60099	- IEND DI	IMP; Approx. 20 Y
c. Driver Name / Title:	James Oresen 847-395-6202		
C e. Truck Number:	635		
f. Vehicle License No. / S	State. IL		
Acknowledgement of Re	ceipt of Materials		
D/vers Signatur	Shipment Date		
b. Physical Address:	DESTINATION Advanced Disposal Services Zion Landfill, Inc. 701 Green Bay Rd. Zion, IL 60099	c. Phone Number: d. Mailing Address	(847) 599-5921 SAME
e. Discrepancy Indication	ı Space:		
f	bove named material has been accepted and to the best of	of my knewledge the forego	oing is true and accurate.
Name of Nuthorized Age	nt Signature)	Receipt Date ·

95617

ZION LANDFILL



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Designated Facility	ZION LANDFILL	Internal Ne-100-12-2	مرو
Section I	GENERATOR		
a. Generator Name:	US EPA Region 5	b.Generating Location: Same	
c. Address:	77 West Jackson Blvd. Mail Code: SR-6J	d Address: 100 East Sea Horse Dr.	
	Chicago, IL 60604	Waukegan, IL 60085	
e. Phone No.:	312-886-6551	f. Phone Number: 312-886-6551	
If the owner of th	e generaling facility differs from the generalor, provide.	1	
	Sarah Rolfes	K. Quantity- Ld 1 Ld 5	Ür
	312-886-6551	it days as i	
		Quantity- Ld 2 Ld 6	
ı Waste Profile No. :	#006533	Quantity- Ld 3 Ld 7	
j. Description of Waste	C-Soil	Quantity- Ld 4 Ld 8 Units - y = yard o = o	
261 or any applicab	e/cHZM	fied and packaged, and is in	20
Section If	TRANSPORTER		
a. Transporter Name:	Kirschhoffer Truck Service, Inc	NOTES / COMMENTS	
b Address:	43185 N. Hwy 41	-	
D Address.	Zion, IL 60099	-END DUMP; APPROX. 201	
c. Driver Name / Title:	Chad Yancey Driver	— — — — — — — — — — — — — — — — — — —	
e. Truck Number:	679		
f Vehicle License No. /	State: IL	7	
Acknowledgement of Re	eceipt of Materials	7	
Drivery Signature	X 10-7-20 Shipment Date		
Section III	DESTINATION	1	
a. Site Name: b. Physical Address:	Advanced Disposal Services Zion Landfill, Inc. 701 Green Bay Rd. Zion, IL 60099	c. Phone Number (847) 599-5921 d. Mailing Address SAME	
e. Discrepancy Indicatio	n Space:		
I hereby certify that the	stigue named material has been accepted and to the best of	of my knowledge the foregoing is true and accurate.	
-/-/			
		1017/20	2
Name of Authorized Age	ent Signature	Receipt Date	
_			

95617



Designated Facility	ZION LANDFILL		Internal No 100 72-25 8
Section I	GENERATOR		
a. Generator Name. c. Address:	US EPA Region 5 77 West Jackson Blvd. Mail Code SR-6J Chicago, IL 60604	b.Generating Location d. Address	100 East Sea Horse Dr. Waukegan, IL 60085
e. Phone No	312-886-6551	f. Phone Number:	312-886-6551
If the owner of th	e generating facility differs from the generator, provide		Units
g. Owners Reps Name	Sarah Rolfes	K. Quantity- Ld 1	Ld 5
h. Owners Phone No.:	312-886-6551	Quantity- Ld 2	
i. Waste Profile No. :	#006533	Quantity- Ld 3	Ld 7
j. Description of Waste	C-Soil	Quantity- Ld 4	Ld 8 Units - y = yard q = other
	LO/CHZM DA KELIONS		
Section II	TRANSPORTER		
a. Transporter Name b. Address:	Kirschhoffer Truck Service, Inc 43185 N. Hwy 41 Zion, IL 60099	- FEND DO	NOTES/COMMENTS MI); Approx. 204
c. Driver Name / Title:	LOREN Schlagel 847-395-6202		
e. Truck Number: f. Vehicle License No. /	State: IL		
Acknowledgement of Re	eceipt of Materials		
g Drivers Signature	May x 10 - 7 - 2020 Shipment Date	_	
Section III	DESTINATION		
a. Site Name: b. Physical Address:	Advanced Disposal Services Zion Landfill, Inc. 701 Green Bay Rd Zion, IL 60099	c. Phone Number. d. Mailing Address	(847) 599-5921 SAME
e. Discrepancy Indicatio	n Space:		
I hereby certify that the	bove named material has been accepted and to the best of	my knowledge the forego	ping is true and accurate.
f Name of Authorized Age	Signature	$\overline{}$	Receipt Date



Designated Facility	ZION LANDFILL	_	Internal No. 1001200
Section I	GENERATOR		
a. Generator Name:	US EPA Region 5	b.Generating Location:	Same
c. Address.	77 West Jackson Blvd. Mail Code : SR-6J	d. Address:	100 East Sea Horse Dr.
	Chicago, IL 60604		Waukegan, IL 60085
e Phone No.:	312-886-6551	f. Phone Number:	312-886-6551
	ne generating facility differs from the generator, provide.	i. I fione Humber.	Ur
g. Owners Reps Name		K. Quantity- Ld 1	Ld 5
h. Owners Phone No	312-886-6551	•	
		Quantity- Ld 2	Ld 6
i Waste Profile No. :	#006533	Quantity- Ld 3	Ld 7
j. Description of Waste	c. C-Sail	Quantity- Ld 4	Ld 8 Units - y = yard o = other
Section II	Agent Name Signature TRANSPORTER Kirschhoffer Truck Service, Inc	1	Shipmen Date /
a. Transporter Name: b. Address:	43185 N. Hwy 41	En20	DUMP; ADRRUX 204
	Zion, IL 60099		
c. Driver Name / Title:	10b Mantoot 847-395-6202	-	
d Phone: e. Truck Number:	796	-	
Vehicle License No. /			
Acknowledgement of R			
g. Drivers Signature	10 10 7 2020 Shipment Date		
Section III	DESTINATION	1	
a. Site Name: b. Physical Address:	Advanced Disposal Services Zion Landfill, Inc. 701 Green Bay Rd. Zion, IL 60099	c. Phone Number: _d. Mailing Address	(847) 599-5921 SAME
e. Discrepancy Indication	on Space:		
	· · · · · · · · · · · · · · · · · · ·	my knowledge the foregr	ping is true and accurate
	above named material has been accepted and to the best of	Pmy knowledge the forego	oing is true and accurate.
	above named material has been accepted and to the best of	my knowledge the forego	ping is true and accurate. () () () () () () () () () (

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

SITE	CELL	TICKET #		OPERATO	DR .
ZL		1254028	1254028 ZLILJEGREN		
	RUCK	CONTAIN	ER	LICE	NSE
	306_JV				
	R	EFERENCE		IN	OUT
96				10/7/20 11:45 am	10/7/20 11:45 am

INVOICE INBOUND

BOL:		GROSS TARE NET	76,000.00 LI 27,940.00 LI 48,060.00 LI	BS Tare Out		
QTY UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
24.03 TN 1.00	C-Soilnex - External COMPLIANCE AND BUSINESS IMPACT CHARG	LC	100.00			

Thank you for your business!!

I hereby certify that this load does not contain any unauthorized hazardous waste.

Energy Charge Environmental Charge Total

Tax Total

Paid

Change

Check# Recpt #

FACILITY COPY

ZION LANDFILL 701 GREEN BAY ROAD

ZION, IL 60099 8475995920

SIGNATURE:_

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

INVOICE INBOUND

SITE	CELL	TICKET #	CKET # OPERATO			
ZL		1253965	1253965 ZLILJEGREN		EN	
	TRUCK CONTA		VER	R LICENSE		
388	ZIZZOS					
	F	REFERENCE		IN	our	
80				10/7/20 7:55 am	10/7/20 8:12 am	

BOL:		GROSS TARE NET		LBS Scale In LBS Scale Out LBS		
QTY UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
25.56 TN 1.00	C-Soilnex - External COMPLIANCE AND BUSINESS IMPACT CHARG	LC	100.00			

Thank you for your business!!

Energy Charge Environmental Charge Total

Tax Total

Paid

Change Check#

Decat #

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

				T				
SITE	CELL	1	TICKET #		OPERATO	DR		
ZL		1	.253982		ZLILJEGREN			
	TRUCK		CONTAIN	ER	LICENSE			
388	ZIZZO:	S						
		REFERI	ENCE		IN	OUT		
80					10/7/20 9:21 am	10/7/20 9:21 am		

INVOICE **INBOUND**

BOL:	006533		GROSS TARE NET		LBS Scale In LBS Tare Out LBS		
QTY	TINU	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
1.00	TN	C-Soilnex - External COMPLIANCE AND BUSINESS IMPACT CHARG	rc	100.00 0.00			

Thank you for your business!!

I hereby certify that this load does not contain any unauthorized hazardous waste.

Energy Charge

Total

Tax Total

Environmental Charge

Paid Change

Check# Recpt #

SIGNATURE:

FACILITY COPY

ZION LANDFILL 701 GREEN BAY ROAD ZION, IL 60099 8475995920

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

INVOICE INBOUND

SITE	CELL	-	FICKET #		OPERATOR			
ZL		1	1254009		ZLILIEGREN			
	TRUCK CONTA		CONTAIN	IER	LICENSE			
388	B_ZIZZO:	5						
		REFER	ENCE		IN	OUT		
80					10/7/20 10:43 am	10/7/20 10:43 am		

BOL:	N006533		GROSS TARE NET		LBS Scale In LBS Tare Out LBS		
QTY	UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
24.49	TN	C-Soilnex - External	LC	100.00	 		
1.00		COMPLIANCE AND BUSINESS IMPACT CHARG		0.00	}		
,]		
					ł I		
Ì		,					

Thank you for your business!!

Energy Charge

Environmental Charge

Total

Tax Total

Paid

Change Check#

Recpt #

I hereby certify that this load does not contain any unauthorized hazardous waste.

CTCNATIOE.

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

SITE	CELL	٦	TICKET #		OPERATOR			
ZL.		1	1254035		ZLILJEGREN			
	RUCK		CONTAIN	ER	R LICENSE			
388	B_ZIZZOS	5						
		REFERI	ENCE		IN	OUT		
80					10/7/20 12:12 pm	10/7/20 12:12 pm		

INVOICE INBOUND

BOL:	06533		GROSS TARE NET		LBS Scale In LBS Tare Out LBS		
QTY	UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
20.28	TN	C-Soilnex - External COMPLIANCE AND BUSINESS IMPACT CHARG	I.C	100.00			

Thank you for your business!!

Energy Charge Environmental Charge Total

Tax Total

I hereby certify that this load does not contain any unauthorized hazardous waste.

Paid Change

Check# Recpt #

SIGNATURE:

FACILITY COPY

ZION LANDFILL 701 GREEN BAY ROAD ZION, IL 60099 8475995920

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

INVOICE INBOUND

SITE	CELL	١	TICKET #		OPERATOR				
ZL		1	.253963	ZLILJEGREN					
1	TRUCK CONTAINE				LICENSE				
635	ZIZZOS	5							
		REFER	ENCE		IN	OUT			
78					10/7/20 7:52 am	10/7/20 8:07 am			

BOL:		GROSS TARE NET		LBS Scale In LBS Scale Out		
QTY UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
24.90 TN 1.00	C-Soilnex - External COMPLIANCE AND BUSINESS IMPACT CHARG	LC	100.00			

Thank you for your business!!

Energy Charge Environmental Charge Total

Tax Total

Paid

Change Check#

Docot #

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

SITE CELL TICKET # **OPERATOR** 1253979 ZL ZLILJEGREN TRUCK CONTAINER LICENSE 635_ZIZZOS REFERENCE IN OUT 78 10/7/20 10/7/20 9:17 am 9:17 am

INVOICE INBOUND

		_				
ONTRACT: N006533		GROSS TARE NET		LBS Scale In LBS Tare Out LBS		
QTY UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
25.86 TN 1.00	C-Soilnex - External COMPLIANCE AND BUSINESS IMPACT CHARG	ľC	100.00			

Thank you for your business!!

I hereby certify that this load does not contain any unauthorized hazardous waste.

Energy Charge

Environmental Charge

Total

Tax Total

Paid

Change

Check# Recpt #

SIGNATURE:

FACILITY COPY

ZION LANDFILL 701 GREEN BAY ROAD ZION, IL 60099 8475995920

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

INVOICE INBOUND

SITE	TE CELL TICKET #			OPERATOR					
ZL		1	254007	54007 ZLILIEG					
1	TRUCK CONTAINS				LICENSE				
635	ZIZZOS	S							
		REFERE	ENCE		IN	OUT			
78					10/7/20 10:37 am	10/7/20 10:37 am			

BOL:	6533		GROSS TARE NET		LBS Scale In LBS Tare Out LBS		
QTY L	TINL	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
25.58 T	N .	C-Soilnex - External COMPLIANCE AND BUSINESS IMPACT CHARG	rc	100.00			

Thank you for your business!!

Energy Charge

Environmental Charge

Total

Paid

Tax Total

Change Check#

Recpt #

I hereby certify that this load does not contain any unauthorized hazardous waste.

CTCNATURE.

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

SITE	SITE CELL TICKET #				OPERATOR				
ZL		1254031		ZLILJEGREN					
. 1	TRUCK CONTAINER				LICENSE				
635	ZIZZO	5							
		REFERENCE			IN	OUT			
78					10/7/20 11:59 am	10/7/20 11:59 am			

INVOICE INBOUND

BOL:		GROSS TARE NET	76,800.00 L 28,980.00 L 47,820.00 L	BS Tare Out		
QTY UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
23.91 TN 1.00	C-Soilnex - External COMPLIANCE AND BUSINESS IMPACT CHARG	LC	100.00			

Thank you for your business!!

I hereby certify that this load does not contain any unauthorized hazardous waste.

Energy Charge

Total

Tax Total

Environmental Charge

Paid Change

Check# Recpt #

SIGNATURE:

FACILITY COPY

ZION LANDFILL 701 GREEN BAY ROAD ZION, IL 60099 8475995920

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

INVOICE INBOUND

SITE	E CELL TICKET #				OPERATOR				
ZL		1	253967	ZLILJEGREN					
TRUCK CONTAINE				R	LICENSE				
679	_ZIZZOS	5							
		REFERI	ENCE		IN	ОИТ			
32					10/7/20 8:09 am	10/7/20 8:23 am			

BOL:		GROSS TARE NET	92,660.00 LI 29,900.00 LI 62,760.00 LE	SS Scale Out		
QTY UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
31.38 TN	C-Soilnex - External COMPLIANCE AND BUSINESS IMPACT CHARG	LC	100.00			

Thank you for your business!!

Energy Charge Environmental Charge Total Paid

Tax Total

I hereby certify that this load does not contain any unauthorized hazardous waste.

Change Check#

Docat #

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

ſ								
SITE	E CELL TICKET #				OPERATOR			
ZL		1	253985		ZLILJEGREN			
7	TRUCK CONTAINER				LICENSE			
679	ZIZZO	S						
		REFERE		IN	OUT			
82					10/7/20 9:30 am	10/7/20 9:30 am		

INVOICE INBOUND

CONTRACT: N	N006533		GROSS TARE NET		.BS Scale In .BS Tare Out .BS		
QTY	TINU	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
19.39	TN	C-Soilnex - External COMPLIANCE AND BUSINESS IMPACT CHARG	ic	100.00			
nk you for you	ır business	: :			Tax Total	Total	

Energy Charge

Paid

I hereby certify that this load does not contain any unauthorized hazardous waste.

Environmental Charge

Change

Check# Recpt #

SIGNATURE:

FACILITY COPY

ZION LANDFILL 701 GREEN BAY ROAD ZION, IL 60099 8475995920

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

INVOICE INBOUND

SITE	CELL	TICKET #		Г	OPERATOR				
ZL		1	254011		ZLILJEGREN				
TRUCK			CONTAINER		LICENSE				
679	_ZIZZOS	5							
REFERENCE					IN	OUT			
82					10/7/20 10:54 am	10/7/20 10:54 am			

BOL:	N006533		GROSS TARE NET		BS Scale In BS Tare Out BS		
QTY	UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
25.27	TN	C-Soilnex - External	LC	100.00		_	
1.00		COMPLIANCE AND BUSINESS IMPACT CHARG		0.00			
					1		
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						1	
				J	į	1	

Thank you for your business!!

Energy Charge Environmental Charge

Tax Total

Total

Paid

Change

Check# Recpt #

I hereby certify that this load does not contain any unauthorized hazardous waste.

STONATURE.

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

				T				
SITE	SITE CELL TICKET #				OPERATOR			
ZL		1	ZLILJEGREN			LEN		
	TRUCK CONTAINER			IER	LICENSE			
679	_ZIZZ0:	S						
		REFER	ENCE		IN	OUT		
82					10/7/20 12:34 pm	10/7/20 12:34 pm		

INVOICE INBOUND

CONTRACT: N006533 BOL:		GROSS TARE NET		LBS Scale In LBS Tare Out LBS		· <u> </u>
QTY UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
12.44 TN 1.00	C-Soilnex - External COMPLIANCE AND BUSINESS IMPACT CHARG	LC	100.00			

Thank you for your business!!

I hereby certify that this load does not contain any unauthorized hazardous waste.

Energy Charge **Environmental Charge** Total

Paid

Tax Total

Change Check#

Recpt #

SIGNATURE:

FACILITY COPY

ZION LANDFILL 701 GREEN BAY ROAD ZION, IL 60099 8475995920

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

INVOICE INBOUND

SITE	CELL	1	TICKET #		OPERATOR		
ZL		1	1253970 ZLILJEGREN				
TRUCK			CONTAINER		LICENSE		
795	795_ZIZZOS						
		REFER	ENCE		IN	OUT	
84 					10/7/20 8:18 am	10/7/20 8:33 am	

							0,55
BOL:	N006533		GROSS TARE NET		LBS Scale In LBS Scale Out		
QTY	UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
24.36 1.00	TN	C-Soilnex - External COMPLIANCE AND BUSINESS IMPACT CHARG	LC	100.00			

Thank you for your business!!

Energy Charge Environmental Charge Total

Tax Total

Paid

Change

Decnt #

I hereby certify that this load does not contain any unauthorized hazardous waste.

Check#

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

SITE CELL TICKET # **OPERATOR** 1253993 ZL ZLILJEGREN TRUCK CONTAINER LICENSE 795_ZIZZOS REFERENCE ΙN OUT 84 10/7/20 10/7/20

INVOICE INBOUND

CONTRACT; N006533		GROSS TARE . NET		LBS Scale In LBS Tare Out		9:42 am	9:42 a
QTY UNIT	DESCRIPTION	ORIGIN	19,800.00	RATE [TAX	ТО	TAL
24.90 TN 1.00	C-Solinex - External COMPLIANCE AND BUSINESS IMPACT CHARG	ſĊ	100.00				

Thank you for your business!!

I hereby certify that this load does not contain any unauthorized hazardous waste.

Energy Charge

Total

Tax Total

Paid

Environmental Charge

Change

Check#

Recpt #

FACILITY COPY

SIGNATURE:_

ZION LANDFILL 701 GREEN BAY ROAD ZION, IL 60099 8475995920

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

INVOICE INBOUND

SITE	ITE CELL TICKET #			OPERATOR			
ZL		1	1254014 ZLILJEGREN				
1	TRUCK CO			IER	R LICENSE		
795	_ZIZZO:	S					
		REFERI	ENCE		IN	OUT	
84					10/7/20 11:06 am	10/7/20 11:06 am	

BOL:	006533		GROSS TARE NET		LBS Scale In LBS Tare Out LBS		
QTY	UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
1.00	TN	C-Soilnex - External COMPLIANCE AND BUSINESS IMPACT CHARG	rc	100.00 0.00			

Thank you for your business!!

Energy Charge

Environmental Charge

Total

Paid

Tax Total

Change Check#

Recpt #

I hereby certify that this load does not contain any unauthorized hazardous waste.

CTOMATION.

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

SITE CELL TICKET # **OPERATOR** ZL 1253959 ZLILJEGREN TRUCK CONTAINER LICENSE 796_ZIZZOS REFERENCE IN OUT 76 10/7/20 10/7/20 7:34 am 7.56 am

INVOICE INBOUND

			_				7.30 6
CONTRACT: NO			GROSS TARE NET		.BS Scale In .BS Scale Out .BS		
QTY	UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
27.08	TN	C-Soilnex - External COMPLIANCE AND BUSINESS IMPACT CHARG	LC	100.00			. Jane
nk you for your	business	!!			Tax Total	 Total	

I hereby certify that this load does not contain any unauthorized hazardous waste.

Energy Charge

Environmental Charge

Paid

Change Check#

Recpt #

ZION LANDFILL 701 GREEN BAY ROAD ZION, IL 60099 8475995920

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

INVOICE INBOUND

SITE	CELL	TICKET #	TICKET #		OPERATOR		
ZL		1253975	ZLILJEGREN				
TRUCK CONT		CONTAIN	ER	LICENSE			
796	ZIZZOS						
	R	EFERENCE		IN	OUT		
76				10/7/20 8:57 am	10/7/20 8:57 am		

BOL:		GROSS TARE NET		LBS Scale In LBS Tare Out LBS		
QTY UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
23.58 TN 1.00	C-Soilnex - External COMPLIANCE AND BUSINESS IMPACT CHARG	ıc	100.00			

Thank you for your business!!

Energy Charge Environmental Charge Tax Total Total

Paid

Change Check# Recpt #

I hereby certify that this load does not contain any unauthorized hazardous waste.

CTOMATURE.

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

SITE CELL TICKET # **OPERATOR** ZL 1253998 ZLILJEGREN TRUCK CONTAINER LICENSE 796_ZIZZOS REFERENCE ΙN OUT 76 10/7/20 10/7/20 10:13 am 10:13 am

INVOICE INBOUND

		_				10.13
CONTRACT: N006533 BOL:		GROSS TARE NET	77,700.00 L 30,020.00 L 47,680.00 L	BS Tare Out		
QTY UNIT	DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
23.84 TN 1.00	C-Soilnex - External COMPLIANCE AND BUSINESS IMPACT CHARG	LC	100.00			

Thank you for your business!!

Energy Charge

Total

Paid

Tax Total

I hereby certify that this load does not contain any unauthorized hazardous waste.

Environmental Charge

Change

Check#

Recpt #

SIGNATURE:_

FACILITY COPY

ZION LANDFILL 701 GREEN BAY ROAD ZION, IL 60099 8475995920

095617 JOB SITE SERVICES, INC. 4395 WILDER RD ATTN: ALISHA ADKINS A/P BAY CITY, MI 48706

INVOICE INBOUND

SITE	CELL		ΠCKET #		OPERATOR				
ZL		1	1254021	ZLILJEGREN					
TRUCK			CONTAINER		LICENSE				
796	ZIZZO	5							
		REFER	ENCE		IN	OUT			
76					10/7/20 11:31 am	10/7/20 11:31 am			

CONTRACT: N0065	33	GROSS TARE NET		LBS Scale In LBS Tare Out LBS		
QTY UNI	T DESCRIPTION	ORIGIN	%	RATE	TAX	TOTAL
26.84 TN 1.00	C-Soilnex - External COMPLIANCE AND BUSINESS IMPACT CHARG	LC	100.00			

Thank you for your business!!

Energy Charge **Environmental Charge** Tax Total Total

Paid

Change

I hereby certify that this load does not contain any unauthorized hazardous waste.

Check# Recpt #

Attachment 5 Photograph Log



Project Title Infiltration Treatment Wetland Construction

Purpose Representative Photos of Wetland Construction Activities

Location OMC Waukegan Harbor Site Operable Unit 1, Waukegan, Illinois

Date September 2020



Photograph 1: Mobilization, site preparation, silt fence installation, and clearing and grubbing





Photograph 2: Site preparation and clearing and grubbing





Photograph 3: Excavation





Photograph 4: Excavation





Photograph 5: Excavation





Photograph 6: Wellpoint Riser Extension

6





Photograph 7: Cascade inlet installation





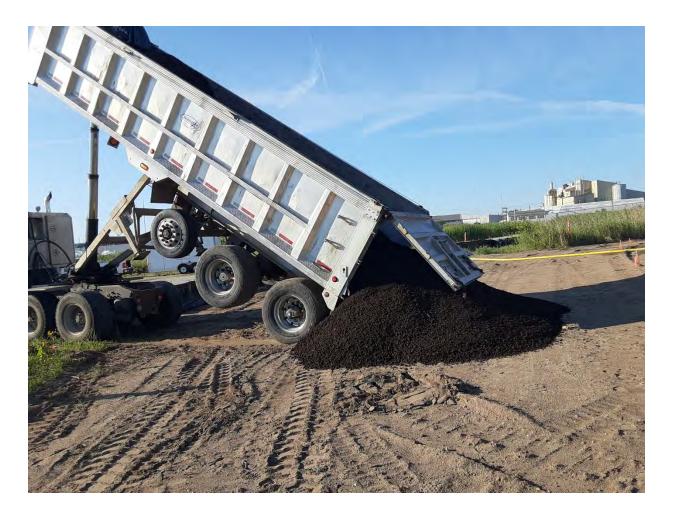
Photograph 8: Cascade inlet installation





Photograph 9: Cascade inlet discharge pipe to WTS

ch2m:



Photograph 10: Topsoil Placement





Photograph 11: Topsoil Placement





Photograph 12: Wetland plantings

12





Photograph 13: Wetland plantings





Photograph 14: Sod installation

14





Photograph 15: Sod hydroseed maintenance